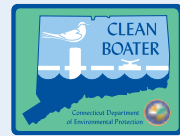


CONNECTICUT CLEAN MARINA GUIDEBOOK



Connecticut Department of Environmental Protection
2002

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Hartford, Connecticut

2002



This guidebook was funded by the Connecticut Department of Environmental Protection through a United States Environmental Protection Agency Clean Water Act Section 319 nonpoint source grant. Additional financial assistance was provided by the Coastal Zone Management Act of 1972, as amended, administered by the Office of Ocean and Coastal Resource Management, National Oceanic and Atmospheric Administration.

This manual is intended as an educational tool for marina operators and boaters. It does not constitute a complete reference to state, federal or local laws. Relying on the information in this book will not protect you legally. This book may not be relied upon to create a right or benefit substantive or procedural, enforceable at law or in equity by any person.

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Clean Marina logo by Tom Ouellette, CT-DEP

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A Message From The Commissioner of the Department of Environmental Protection:

Dear Responsible Marina or Boatyard Operator:

We commend you for committing to improve the environmental quality of your facility by using this *Clean Marina Guidebook*. You join a growing number of marina and boatyard operators who recognize the economic importance of outstanding environmental practices at recreational boating facilities.

The Connecticut Department of Environmental Protection worked closely with a group of marina operators, planners, consultants and the Connecticut Marine Trades Association to develop this *Clean Marina Guidebook* as a reference for environmental practices at marinas. Development of the Clean Marina Program and this *Clean Marina Guidebook* would not have been possible without the cooperative efforts of the marina industry.

Through the Clean Marina Program, the Department of Environmental Protection will certify those marinas that demonstrate that they go above and beyond what is legally required, and have made a serious commitment to improving their environmental practices. Benefits of Clean Marina certification include:

- A Clean Marina flag
- Promotion by the Clean Marina Program in publications, on the Internet, and at public events
- A framed certificate
- Authorization to use Connecticut's Clean Marina logo on letterhead and in their advertising

As a companion to the Clean Marina Program, this Department is implementing a Clean Boater Program to encourage the state's boaters to learn about and use clean boating techniques. Boaters pledge to be Clean Boaters and will be encouraged to use certified Clean Marinas.

Participation in the Clean Marina Program is entirely voluntary. Picking up this manual is the first step toward Clean Marina certification. Many of you have already made environmental changes in your operations—why not make a few more to become a certified Clean Marina?

Thank you for your commitment to improve the quality of Connecticut's environment.

Sincerely,

A large, stylized handwritten signature in black ink, which appears to read "Arthur J. Rocque, Jr.".

Arthur J. Rocque, Jr.
Commissioner

Acknowledgements

This guidebook was developed in close collaboration with the Clean Marina Steering Committee. This dedicated and knowledgeable group deserves a great deal of credit and thanks for volunteering many hours in development of the program:

| | |
|-------------------------------|---|
| Nancy Bodick | Milford Boat Works |
| Scott Bowden | Port Niantic Marina |
| Mike Buenaventura | Seaboard Marine |
| Abbie Coderre | Chrisholm Marina |
| Dave Crocker | Crocker's Boatyard |
| David Cronin and Jim Brown | Brewer Deep River Marina |
| Dave Galt | formerly of SoundKeeper |
| Rick Kral | Beacon Point Marine, and CT Maritime Coalition |
| Tom Law | Docko, Inc. |
| John McMahon | Brewer Bruce & Johnson's Marina |
| Jack Morehouse | Mason's Island Marina |
| Rives Potts | Brewer Pilots Point Marina |
| Diane Rhodes and Amy Cabiness | CT River Estuary Regional Planning Agency |
| Ted Sailer | Sailer Environmental, Inc. |
| Joe Savino | Bridgeport Harbormaster |
| Dawn Schieferdecker | Essex Island Marina |
| Gary Sharpe | Angus McDonald-Gary Sharpe & Associates |
| Stephen Tagliatela | Saybrook Point Marina |
| Larry Wells | United States Environmental Protection Agency |
| Grant Westerson | Connecticut Marine Trades Association |

Representatives from the Connecticut Department of Environmental Protection served on the Clean Marina Internal Advisory Committee. This group also deserves a great deal of credit and thanks for the time they spent working on development of this document:

Ross Bunnell (Waste), Kim Czapla (Boating Division), Susan Gradante (Office of Long Island Sound Programs, [OLISP]), Mary-beth Hart (OLISP), Rick Huntley (OLISP), Eleanor Mariani (Boating), Bill Menz (Air), Mark Parker (Water), Mike Powers (Natural Resources), Chris Stone (Water), Elke Sutt (OLISP), Kim Trella (Waste, Pollution Prevention), and Betsey Wingfield (OLISP).

Also deserving of thanks for their assistance in development of this document and the Clean Marina Program are:

Tracy Babbidge (DEP-Air), Harrison Bresee and Mark Slauter (Virginia Clean Marina Program), Bob Girard (DEP-Air), Don Gonyea (DEP-Water), Robin Lacey (Massachusetts Marina Assistance Program), Tom Ouellette (OLISP), Joe Pulaski (CT-SERC), Neil Ross (Neil Ross Consultants), Beth Valentine (Maryland Clean Marina Initiative), Phil Wilde (DEP-Waste) Stan Zaremba and Deborah Frey (DEP-Nonpoint Source Management Program).

Designed by: Mary Crombie Geer, Acorn Studio, Hartford, CT
Printed by: Impressions, Inc., East Windsor, CT

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Introduction

This guidebook provides the information necessary for Connecticut's marina and boatyard operators to make environmentally sound business choices and outlines the steps for certification as a Connecticut Clean Marina. The Connecticut Clean Marina Program is a voluntary, incentive-based education and outreach campaign to encourage environmental compliance and the use of Best Management Practices (BMPs) at the state's marinas and boatyards. The Clean Marina Program operates in conjunction with the Clean Boater Program which encourages boaters to pledge to use clean boating practices.

The goal of the Clean Marina Program is to reduce nonpoint source pollution associated with recreational boating facilities in Connecticut's inland and coastal marinas, and to promote clean water and clean air. Nonpoint sources of pollution occur when water runs over land, picks up pollutants, and deposits them in surface waters. Mismanaged pollutants from everyday marina activities can enter a marina basin as nonpoint source pollution. Nonpoint source pollution can be managed by using BMPs, which are measures that control the pollutant at its source, or intercept the pollutant before it is delivered to the receiving water body. This guidebook describes how to reduce potential pollution from marinas by outlining the legal requirements and suggested BMPs for common marina activities.

Of course, marinas and boatyards are not the only potential source of pollution in our state's waters. Water quality is impacted by a number of upland activities from pesticide and fertilizer use at residential homes to discharges from industry and sewage treatment plants. These activities and others are being addressed through other programs. Every potential pollutant source needs to be addressed so that we can all do our part to improve the quality of Connecticut's waters. The Clean Marina Program is part of a much larger effort to reduce nonpoint sources of pollution from throughout the state in part to address the requirements of the Environmental Protection Agency and the National Oceanic and Atmospheric Administration under Section 319 of the 1987 amendments to the Clean Water Act and Section 6217 of the federal Coastal Zone Act Reauthorization Amendments of 1990.

How To Use This Guidebook

This guidebook is divided into two parts, the **Clean Marina Activities** section and the **Legal Requirement Appendices**. The **Clean Marina Activities** section is divided into seven tabbed sections:

- Tab One: Mechanical Activities
- Tab Two: Painting and Fiberglass Repair
- Tab Three: Hauling and Storing Boats
- Tab Four: Fueling
- Tab Five: Facility Management
- Tab Six: Emergency Planning
- Tab Seven: Boater Education

Each of the seven tabbed sections is divided into fact sheets on specific marina activities, such as changing oil or fueling. Every fact sheet is organized into the following categories:

- Potential Environmental Impacts
- Legal Requirements
- Best Management Practices
- Checklist for Clean Marina Certification

You can use the fact sheets as a quick reference for legal compliance and suggested BMPs when you are performing a specific marina activity. The BMPs can be used alone or in combination to reduce environmental impacts above and beyond what is legally required. The questions for Clean Marina certification come directly from the list of BMPs in each fact sheet. All of these certification questions are compiled on the “Connecticut Clean Marina Award Checklist,” which is used to determine Clean Marina status.

Each of the seven tabbed **Clean Marina Activities** sections begins with a **Quick Reference Table** to the legal requirements for the listed Clean Marina Activities. This table can be used to by-pass the activity fact sheet and quickly determine the legal requirements referred to in the **Legal Requirements Appendix**.

The **Legal Requirements Appendices** summarize many of the federal and state laws that apply to marinas and boatyards, and outline what steps need to be taken for legal compliance. The **Legal Requirements** section has six appendices:

- Appendix A: Hazardous Substance Management
- Appendix B: Hazardous Waste Management
- Appendix C: Used Oil Management
- Appendix D: Solid Waste Management
- Appendix E: Spills
- Appendix F: Stormwater General Permit

Many of the fact sheets in the **Clean Marina Activities** section refer the reader to the appendices for more information.

How to Become a Certified Connecticut Clean Marina

A marina or boatyard must meet all legal and regulatory standards required by the state and federal government, and then meet a percentage of BMPs outlined in this document to become certified as a Connecticut Clean Marina. The criteria are outlined in two checklists: the “Connecticut Marina Compliance Checklist,” and the “Connecticut Clean Marina Award Checklist.”

To become a certified Connecticut Clean Marina, use the “Connecticut Clean Marina Award Checklist,” the “Connecticut Marina Compliance Checklist,” and the *Connecticut Clean Marina Guidebook* as references to assess your facility. If you meet the requirements for certification, contact the Connecticut Clean Marina Program at (860) 424-3034 to schedule a confirmation visit. A representative from the Connecticut Clean Marina Program will meet with you to verify the items checked on the “Connecticut Clean Marina Award Checklist.”

If you do not yet meet the minimum percentage of criteria on the checklist, you can still join the program as a Clean Marina Pledge. By signing the “Connecticut Clean Marina Pledge,” you commit to becoming certified within one year. Clean Marina staff and volunteer marina operators are available to help answer questions as you work toward Clean Marina certification.

Once certified, you must confirm annually in writing that you continue to meet the award standards described on the “Connecticut Clean Marina Award Checklist.” A Clean Marina representative will contact you to set up a meeting at a mutually convenient time to reaffirm your Clean Marina status.

The benefits of Clean Marina Certification are clear. All Connecticut Clean Marinas are authorized to use the Clean Marina logo on letterhead and in advertising. All receive a framed certificate, and a Clean Marina logo flag. Certified Clean Marinas will be listed on Connecticut Clean Marina web page at <http://dep.state.ct.us/>, and will be included in Clean Marina publications and public displays. Connecticut Clean Marina staff will prepare a news release recognizing your demonstrated commitment to environmental stewardship.

List of Acronyms

| | |
|--------|---|
| ACOE | Army Corps of Engineers |
| AST | Aboveground Storage Tank |
| BMP | Best Management Practice |
| CERCLA | Comprehensive Environmental Response, Compensation, and Liability Act |
| CESQG | Conditionally Exempt Small Quantity Generator of Hazardous Waste |
| CFR | Code of Federal Regulations |
| CGS | Connecticut General Statutes |
| CMTA | Connecticut Marine Trades Association |
| CT-DEP | Connecticut Department of Environmental Protection |
| CVA | Clean Vessel Act |
| CZARA | Coastal Zone Act Reauthorization Amendments of 1990 |
| DOT | Department of Transportation |
| EPA | United States Environmental Protection Agency |
| EPCRA | Emergency Planning and Community Right-to-Know Act of 1986 |
| HAP | Hazardous Air Pollutant |
| LDR | Land Disposal Restrictions (Hazardous Waste) |
| LQG | Large Quantity Generator of Hazardous Waste |
| MPPRCA | Marine Plastic Pollution Research and Control Act |
| MSD | Marine Sanitation Device |
| MSDS | Material Safety Data Sheet |
| MSW | Municipal Solid Waste |
| NFPA | National Fire Protection Association |
| NOAA | National Oceanic and Atmospheric Administration |
| NPDES | National Pollutant Discharge Elimination System |
| ODC | Ozone Depleting Chemical |
| OLISP | Office of Long Island Sound Programs |
| RCRA | Resource Conservation and Recovery Act |
| RCSA | Regulations of Connecticut State Agencies |
| SPCC | Spill Prevention, Control and Countermeasure |
| SQG | Small Quantity Generator of Hazardous Waste |
| SWGP | Stormwater General Permit |
| SWPPP | Stormwater Pollution Prevention Plan |
| TCLP | Toxicity Characteristic Leaching Procedure |
| USC | United States Code |
| USCG | United States Coast Guard |
| UST | Underground Storage Tank |
| VOC | Volatile Organic Compound |

TAB 1: MECHANICAL ACTIVITIES



Chris Stone

Milford Boat Works, Milford

Mechanical Activities

QUICK REFERENCE TABLE

Use this table as a quick reference to determine what is legally required if you conduct any of the listed activities or use any of the listed products.

We suggest that you read each fact sheet before turning to the referenced legal requirement section because each individual fact sheet provides more detailed information about each activity or product used.

If the “Additional Requirements” box is checked, there are additional requirements that are not described in any appendix, but are described on the referenced fact sheet.

| ACTIVITIES OR PRODUCT USED | Fact Sheet Page # | Appendix A: Hazardous Substance Management | Appendix B: Hazardous Waste Management | Appendix C: Used Oil Management | Appendix D: Solid Waste Management | Appendix F: Stormwater General Permit* | Add'l Requirements |
|----------------------------|--------------------------|---|---|------------------------------------|---------------------------------------|---|--------------------|
| | Antifreeze | 11 | P | | | ✓ | ✓ |
| | Battery Replacement | 13 | P | P | ✓ | ✓ | ✓ |
| | Commissioning Engines | 16 | P | P | | ✓ | |
| | Decommissioning Engines | 17 | P | P | | ✓ | |
| | Degreasing/Parts Washing | 18 | P | | | ✓ | ✓ |
| | Oil Changes | 20 | P | ✓ | | ✓ | |
| | Rags | 22 | P | P | P | | |
| | Refrigerants | 24 | | | | | ✓ |
| | Upland Engine Operations | 25 | P | P | P | ✓ | ✓ |
| | Zinc Replacement | 26 | P | | ✓ | ✓ | |

✓ = applies P = potentially applies, see fact sheet for more information

*NOTE: All facilities classified under Standard Industrial Code (SIC) 4493 (Marina) or SIC 373 (Ship and Boat Building and Repairing), with portions of the facility involved in vehicle, boat, or equipment maintenance, fueling, and/or vehicle and boat or equipment cleaning operations, that discharge stormwater must register for a General Permit for the Discharge of Stormwater Associated with Industrial Activity ("Stormwater General Permit"). See Appendix F for more information.

Potential Environmental Impacts:

Antifreeze can pollute groundwater, surface water and drinking water supplies if dumped, spilled or leaked, and is harmful to marine and aquatic life. While in an engine, antifreeze can become contaminated with lead or fuel to the point where it must be managed as a hazardous waste. There are two types of antifreeze. Antifreeze with ethylene glycol, a greenish-yellow, odorless, sweet-tasting chemical, poses a serious health hazard to humans and animals if ingested. Antifreeze with propylene glycol, which is less toxic, and is marketed as nontoxic, is recommended for use.

Legal Requirements:

- Waste antifreeze can be either hazardous or non-hazardous, depending upon the levels of contaminants it contains (the most common contaminants are lead and benzene). In order to determine which is the case, the generator must either have their waste tested, or utilize reliable “knowledge of process” information for the waste (if available) [40 CFR 262.11; RCSA §22a-449(c)-102(a)(2)(A)]. Such information could include testing by haulers, or studies by industry trade groups (such as CMTA). For more information on waste testing requirements, see [Appendix B](#).
- Antifreeze which is hazardous waste must either be recycled or disposed of via a permitted hazardous waste hauler. While stored on-site, it must be managed in accordance with hazardous waste storage requirements [40 CFR 262.11; RCSA §22a-449(c)-102(a)(2)(A)]. See [Appendix B](#) for more information.
- Antifreeze which is not hazardous waste is still considered a non-hazardous Connecticut-regulated waste, and must be either recycled or disposed of via a permitted waste hauler. There are no specific storage requirements for Connecticut-regulated waste [CGS §22a-454].
- Antifreeze may not be discharged to storm drains, septic systems or sanitary sewers or to surface waters without authorization from CT-DEP [CGS §22a-430].
- A hazardous waste determination must be conducted on any materials used to clean antifreeze spills [40 CFR 262.11; RCSA §22a-449(c)-102(a)(2)(A)]. See [Appendix B](#) for more information.
- If there is a stormwater discharge from your facility, you may have to register for a *General Permit for the Discharge of Stormwater Associated with Industrial Activity* (“Stormwater General Permit”). See [Appendix F](#) for more information.

Best Management Practices:

- ★ Segregate used antifreeze from other wastes. Label the container “Waste Antifreeze.”
- ★ Use propylene glycol antifreeze (usually pink) which is less toxic than ethylene glycol (usually green) where appropriate. Sell propylene glycol in your ships store.

- ★ Recover antifreeze used to winterize systems.
- ★ Recycling options for antifreeze include:
 1. Purchase on-site recycling equipment and recycle at your facility. Conduct a RCRA hazardous waste determination (i.e., test the residue or filter cartridge) at least one time to verify that the waste is not hazardous before recycling on-site. Keep a copy of the test results in your files;
 2. Contract with an on-site mobile recycling service that is permitted by CT-DEP to recycle antifreeze;
 3. Contract with a hauler that recycles the antifreeze off-site. If recycling off-site, use a CT-DEP permitted hauler for transportation to a permitted facility for recycling, treatment, storage or disposal. A list of permitted transporters can be obtained from the CT-DEP by calling (860) 424-4193.
- ★ Provide well-marked, coverable containers which are in good condition to collect antifreeze from customers.
- ★ Use drip pans and funnels when transferring antifreeze to minimize spills and drips.
- ★ Store antifreeze in a container that can be completely drained with a wide opening. Keep antifreeze storage containers closed at all times.
- ★ Provide containment to prevent spills from entering ground water or stormwater.
- ★ Wear eye protection, clothing that covers exposed skin and rubber gloves when transferring antifreeze. Pour slowly and carefully to avoid splashing.
- ★ Never mix antifreeze with other chemicals.

Checklist for Clean Marina Certification:

- ✓ Do you recycle used antifreeze?

YES NO N/A

- ✓ Do you promote the use of less toxic, propylene glycol antifreeze for winterization?

YES NO N/A

- ✓ Do you store used antifreeze in separate, labeled and coverable containers and provide containment to prevent spills from entering groundwater or stormwater?

YES NO N/A



antifreeze on-site may reduce your monthly hazardous waste totals and can minimize the regulations that you are required to comply with by reducing your hazardous waste generator status.

Battery Replacement

Potential Environmental Impacts:

If handled improperly, lead acid batteries pose certain hazards. Battery components are toxic and corrosive, and can also be a fire and explosion hazard. Lead and sulfuric acid can contaminate the air, soil and water. Direct contact with sulfuric acid can burn the skin and eyes. Exposure to lead in the environment can pose a serious health hazard to children. Lead, which is very toxic to aquatic life, can enter marina basins through stormwater when spent lead acid batteries are not managed properly.

Legal Requirements:

- Spent lead acid batteries must be recycled in Connecticut, and may not be disposed of with other solid wastes [RCSA §22a-241b-2(1)(H), CGS §22a-256g(a)].
- If you sell lead acid batteries at your facility, you must accept a used lead acid battery for each new battery that is sold to a customer. Consumers that are not returning a used battery with the purchase of a new battery must pay a five-dollar “core” charge. Retailers must post written notice informing consumers of these requirements [CGS §§22a-256h and -256i].
- There are two options for managing spent lead acid batteries prior to sending them for off-site reclamation. Batteries can be managed according to the so-called Universal Waste Rule [RCSA §22a-449(c)-113, 40 CFR 273] or, alternatively, under special lead-acid battery recycling rules [RCSA §22a-449(c)-106(c)] (see below).
- **Universal Waste Rule requirements.** Marinas that store less than 5,000 kilograms (11,000 pounds) of spent lead-acid batteries would be classified as “Small Quantity Handlers” under these rules. Such handlers are required to do the following [40 CFR 273 Subpart B, RCSA §22a-449(c)-113(a)]:
 - Mark all batteries (or containers holding such batteries) with the words “Universal Waste – Batteries,” “Waste Batteries,” or “Used Batteries.”
 - Store batteries for no more than one year before sending them off-site for recycling.
 - Place any battery that shows signs of leakage, spillage, or damage in a container that is kept closed, is structurally sound, and is compatible with the contents of the battery.
 - Immediately contain any releases of batteries or electrolyte.
 - Before shipping batteries off-site, ensure that they are packaged, marked, labeled, and placarded in accordance with U.S. DOT rules for hazardous materials.
 - Ship the batteries to another Universal Waste handler, or to an authorized destination facility for recycling. Prior to shipment, ensure that the receiving facility agrees to receive the shipment. Any shipments which are rejected must be taken back, or directed to another handler or destination facility.

In addition, if you transport batteries from one site to another, you must comply with Universal Waste transporter requirements [40 CFR 273 Subpart D].

- **Lead acid battery recycling rules.** Persons managing their lead acid batteries under this set of rules must do the following [RCSA §22a-449(c)-106(c)]:
 - Segregate batteries from paper, rags, garbage, flammables, scrap metal or hazardous chemicals by means of a dike, berm, wall or other physical barrier.
 - Store spent lead acid batteries on an impervious surface (such as concrete sealed to protect the surface from degradation), and inspect spent lead acid batteries weekly for leaks and deterioration.
 - Open, handle or store spent lead acid batteries so that the battery case does not rupture, leak, or produce short circuits.
 - Although the lead-acid battery recycling rules do not specifically require it, before shipping batteries off-site, ensure that they are packaged, marked, labeled, and placarded in accordance with U.S. DOT rules for hazardous materials.
- Regardless of which set of rules lead-acid batteries are managed under, a hazardous waste determination must be conducted on spilled acid and broken lead acid batteries, and any materials used to clean a spill, to establish whether or not their disposal is subject to hazardous waste regulations [40 CFR 262.11; RCSA §22a-449(c)-102(a)(2)(A)]. Manage hazardous waste as described in the [Appendix B](#).
- If there is a stormwater discharge from your facility, you may have to register for a *General Permit for the Discharge of Stormwater Associated with Industrial Activity* (“Stormwater General Permit”). See [Appendix F](#) for more information.
- Report the chemicals in lead acid batteries (sulfuric acid and lead) as part of your hazardous and toxic chemical inventory and notifications required under the Emergency Planning and Community Right-to-Know Act of 1986 (EPCRA) [40 CFR 355] if over 500 pounds of batteries are stored on-site. See [Appendix A](#) for more information on EPCRA requirements.

Best Management Practices:

- ✳ Avoid long-term storage of lead acid batteries by sending accumulated batteries to a reclaimer within six months of receipt. Limit accumulation of large quantities of spent batteries. If necessary, ship more frequently.
- ✳ Store spent lead acid batteries upright in a secure location, protected from the elements.
- ✳ Never stack batteries directly on top of each other. Layer with wood.
- ✳ Never drain batteries or crack the casings.
- ✳ Place cracked or leaking batteries in a sturdy, acid-resistant, leak-proof, sealed container (e.g., a sealable 5-gallon plastic pail). The container should be kept closed within the battery storage area.

- Strap batteries to pallets or wrap batteries and pallet in plastic during transport.
- Keep written records of weekly inspections of spent lead acid batteries.

Checklist for Clean Marina Certification:

- ✓ Do you store spent lead acid batteries in a covered area, layered with wood, if stacked?

YES NO N/A

Commissioning Engines

Potential Environmental Impacts:

The waste fluids generated when commissioning engines on the upland, if not properly managed, can potentially enter the water in stormwater runoff. Contact with the fluids can harm fish and other marine and aquatic life. If certain fluids are mixed, they may become subject to hazardous waste requirements and be more expensive to dispose. Waste fluids from commissioning engines may include engine oil, gasoline, diesel fuel and antifreeze.

Legal Requirements:

- If stale gasoline cannot be reconditioned, dispose of it as hazardous waste [40 CFR 262.11; RCRA §22a-449(c)-102(a)(2)(A)]. See [Appendix B](#) for more information, especially the list of [Hazardous Waste Minimization Tips](#).
- If there is a stormwater discharge from your facility, you may have to register for a *General Permit for the Discharge of Stormwater Associated with Industrial Activity* (“Stormwater General Permit”). See [Appendix F](#) for more information.
- If doing an oil change, see “[Oil Changes](#)” fact sheet.
- See “[Antifreeze](#)” fact sheet to determine how to handle, store and dispose of antifreeze used to winterize engines.
- Manage soiled rags as described in “[Rags](#)” fact sheet.

Best Management Practices:

- ✪ Inspect fuel lines for leaks or potential leaks such as cracks and loose connections. These can be persistent problems that last throughout the season, leaking engine fluids into the bilge.
- ✪ Household hazardous waste programs may accept unwanted gasoline and gas/oil blends generated by individual boat owners. Encourage marina patrons to dispose of their waste gasoline through their own municipal household hazardous waste collection programs, if appropriate.

Checklist for Clean Marina Certification:

No Clean Marina certification criteria specific to commissioning engines.



Waste gasoline or diesel fuel sent for recycling (fuel blending) rather than for disposal or incineration are exempt from regulation as hazardous waste.

Decommissioning Engines



Waste gasoline or diesel fuel sent for recycling (fuel blending) rather than for disposal or incineration are exempt from regulation as hazardous waste.

Potential Environmental Impacts:

The waste fluids generated when decommissioning engines on the upland, if not properly managed, can potentially enter the water in stormwater runoff. Contact with the fluids can harm fish and other marine and aquatic life. If certain fluids are mixed, they may become subject to hazardous waste requirements and be more expensive to dispose. Waste fluids from commissioning engines may include engine oil, gasoline, diesel fuel and antifreeze.

Legal Requirements:

- If stale gasoline cannot be reconditioned, dispose of it as hazardous waste [40 CFR 262.11; RCSA §22a-449(c)-102(a)(2)(A)]. See [Appendix B](#) for more information, especially the list of [Hazardous Waste Minimization Tips](#).
- If there is a stormwater discharge from your facility, you may have to register for a *General Permit for the Discharge of Stormwater Associated with Industrial Activity* (“Stormwater General Permit”). See [Appendix F](#) for more information.
- For oil changes see “[Oil Changes](#)” fact sheet.
- See “[Antifreeze](#)” fact sheet to determine how to handle, store and dispose of antifreeze used to winterize engines.
- Manage soiled rags as described in “[Rags](#)” fact sheet.
- Store batteries as described in “[Battery Replacement](#)” fact sheet.

Best Management Practices:

- ★ Use propylene glycol antifreeze to winterize all systems except “closed,” or freshwater cooling systems. Propylene glycol antifreeze is much less toxic than ethylene glycol antifreeze. Use the minimum amount of antifreeze necessary for the job.
- ★ Where appropriate, add stabilizers to fuel to protect engines against corrosion and the formation of sludge, gum, and varnish. Stabilizers are available for gasoline and diesel fuels, and for crankcase oil. This also eliminates the problem of stale fuel disposal in the spring. Check manufacturer’s warranty on engine before adding fuel stabilizers.
- ★ Fill fuel tanks to 85-90% full to prevent flammable fumes from accumulating and to minimize the possibility of condensation leading to corrosion. Do not fill the tank more than 90% full if the boat has an external overflow vent. The fuel will expand as it warms in the springtime, and fuel will spill out the vent line of a full inboard tank.
- ★ Household hazardous waste programs may accept unwanted gasoline and gas/oil blends generated by individual boat owners. Encourage marina patrons to dispose of their waste gasoline through their own municipal household hazardous waste collection programs, if appropriate.

Checklist for Clean Marina Certification:

No Clean Marina certification criteria specific to decommissioning engines.

Degreasing / Parts Washing

Potential Environmental Impacts:

Degreasers used to clean metal parts may be organic solvents (chlorinated or non-chlorinated) or water-based cleaners. Organic solvents usually contain volatile organic compounds (VOCs) which can evaporate quickly. Many VOCs combine with combustion emissions to form ground level ozone, a major component of “smog.” Ozone damages lungs and degrades many materials. When solvents are released and reach water, even in very small quantities, they may render the water unfit for human consumption and uninhabitable for aquatic life. Many organic solvents are also combustible, which may pose a fire hazard.

Legal Requirements:

- A hazardous waste determination must be conducted to establish whether or not disposal of waste solvents and parts washer solutions is subject to hazardous waste regulations [40 CFR 262.11; RCSA §22a-449(c)-102(a)(2)(A)]. A hazardous waste determination must also be conducted on any materials used to clean a spill. Manage hazardous waste as described in [Appendix B](#).
- If there is a stormwater discharge from your facility, you may have to register for a *General Permit for the Discharge of Stormwater Associated with Industrial Activity* (“Stormwater General Permit”). See [Appendix F](#) for more information.
- See “[Rags](#)” fact sheet for more information on managing solvent-soaked rags.
- Any parts washer that uses VOCs at room temperature must follow these equipment design and operating procedures [RCSA §22a-174-20(l)]:
 1. The cover must be easily operated with one hand and closed whenever the parts washer is not being used for 2 minutes or more.
 2. Parts must be covered during draining.
 3. Waste solvent must be stored in covered containers.
 4. Cleaned parts must be drained for at least 15 seconds, or until dripping ceases, whichever is longer.
 5. Degreasing solvent must be sprayed as a compact fluid stream (not a fine, atomized, or shower type) and at a pressure which does not exceed 10 psi.
 6. Operation must cease at the occurrence of any visible solvent leaks.
 7. Post labels on or near each unit summarizing the applicable operating requirements.
 8. Keep monthly records on the amount of solvent added to each unit.



Products that list compounds with “...chloro...” are chlorinated compounds, most of which are hazardous due to their toxicity. Many non-chlorinated organic solvents and common parts washer solutions such as petroleum naphtha or mineral spirits are also typically hazardous due to their ignitability.



Using water-based, non-VOC cleaners instead of solvent-based degreasers may help minimize your facility's regulatory burdens and waste disposal costs.

Best Management Practices:

- ★ Use water-based, non-VOC cleaners that are less hazardous than solvent-based degreasers. They are also less toxic and non-flammable. Don't use a toxic or flammable organic solvent if you don't have to.
- ★ If using VOC-based solvents is unavoidable, catch excess solvents in a pan and reuse.
- ★ Do not mix or add other types of solvents to any degreaser.
- ★ Never discard any degreasing solvent into sinks, floor drains or onto the ground. It will ultimately find its way to local waters, and as little as a thimble full may render thousands of gallons of water uninhabitable for aquatic life or unfit for human consumption. You may be held responsible for remediation costs.
- ★ The CT-DEP is aware of the following companies that can provide less hazardous parts washing systems. This list is not comprehensive and the CT-DEP does not endorse these vendors or services over any others:

| COMPANY NAME | LOCATION | PHONE NUMBER |
|-----------------------------|-------------------|----------------------------------|
| Buckeye International, Inc. | | (800) 321-2583, ext. 270 |
| Chem-Station New England | South Windsor, CT | (860) 291-2863 |
| Clayton Assoc., Inc. | Lakewood, NJ | (800) 248-8650, ask for Sales |
| EnviroSolutions | Milford, CT | (203) 876-2570, (800) 452-0080 |
| Hubbard Hall Service | Waterbury, CT | (203) 756-5521 or (800) 648-3412 |
| Safety-Kleen Service | West Hartford, CT | (860) 953-4222 |
| System One | East Windsor, CT | (800) 711-1414, ext. 417 |
| ZEP Manufacturing | Cheshire, CT | (203) 272-1559 |

Checklist for Clean Marina Certification:

- ✓ Do you use water-based, non-VOC degreasers and part washers, where practical?

YES NO N/A

Oil Changes

Potential Environmental Impacts:

Even small amounts of oil introduced into the marina environment can cause environmental problems, especially if they persist. Although some oil that spills into the water evaporates, petroleum hydrocarbons can remain suspended in the water column, concentrate on the surface, or settle to the bottom. Because of the properties of oil, a cup of oil can spread a very thin sheen over more than an acre of calm water. An oil sheen can block necessary oxygen and light from moving through the surface of the water. According to the EPA, the hydrocarbons in oil harm juvenile fish, upset fish reproduction, and interfere with the growth and reproduction of bottom-dwelling organisms.

Legal Requirements:

- Waste oil must be recycled [RCSA §22a-241b-2(1)(I)].
- Manage used oil, and any materials used to clean a spill, in accordance with the requirements specified in [Appendix C](#) [40 CFR 279 and RCSA §22a-449(c)-119].
- Storage of used oil is subject to all applicable Spill Prevention, Control and Countermeasures [40 CFR 112]. See Spill Prevention, Control and Countermeasure fact sheet in [Appendix E](#) for more information.
- If there is a stormwater discharge from your facility, you may have to register for a *General Permit for the Discharge of Stormwater Associated with Industrial Activity* (“Stormwater General Permit”). See [Appendix F](#) for more information.
- Oily bilge water or any petroleum product that is discharged to the waters of the state must be reported to the CT-DEP’s Oil and Chemical Spill Response Division at (860) 424-3338 [CGS §22a-450]. See [Appendix E](#) for state and federal spill reporting requirements.
- If oily bilge water or any petroleum product that is discharged into navigable waters causes a visible sheen, it may also be necessary to report the discharge to the National Response Center at (800) 424-8802 [Section 311 of the Clean Water Act; 33 USC 1321]. See [Appendix E](#) for the state and federal spill reporting requirements.
- The use of dispersants, such as dishwashing soaps or detergents, on a fuel spill or sheen of any size on the surface water is prohibited in most circumstances [40 CFR 110.4]. Dispersants may only be used with permission from federal or state authorities, and only in rare instances.

Best Management Practices:

- ✱ Do not mix used oil with anything else, such as chlorinated solvents, or expose oil to electrical contact cleaner or carburetor cleaner which can contaminate used oil while in an engine. Doing so will result in the need to perform a hazardous waste determination on the used oil mixture to



Used crankcase oil, automatic transmission fluid, power steering fluid and hydraulic fluid are all considered used oil and can be mixed and managed together.

establish whether or not the mixture must be managed as a hazardous waste.

- ✧ Purchase a non-spill vacuum-type system for spill-proof oil changes, or to suction oily water from bilges.
- ✧ Slip a plastic bag over used oil filters prior to removal to prevent drips.
- ✧ Burn your used oil in a used oil fuel space heater. This is also a cost saving measure that eliminates the cost of waste oil removal and can extend maintenance activities through the winter. See Appendix C for [more information on burning used oil in space heaters](#).
- ✧ Recycle used oil filters. Puncture and drain them first. Collect the drained used oil and manage as describe in [Appendix C](#). If you generate large numbers of filters, consider purchasing a filter crusher.
- ✧ Install collection facilities for used oil and used oil filters and encourage boaters to use them, or direct boaters to their municipal used oil collection facility, usually at local transfer station. Post signs indicating how important it is that the used oil not be contaminated. Consider providing separate tanks for used oil, one for patrons to use and a secure tank for used oil collected by marina facility staff. See Appendix C for [details on used oil storage](#).
- ✧ Use oil absorbent materials to clean up small drips and spills. Sell oil absorbent pads in the ships store.
- ✧ Educate customers and staff to not use soaps and detergents to clean up oily drips and spills.
- ✧ Avoid pumping bilge water that is oily or has a visible sheen. Use oil absorbent materials or an oil/water separator to remove oil before pumping.
- ✧ Purchase a portable or stationary oil/water separator to clean bilge water. These devices draw contaminated water from bilges, capture hydrocarbons in a filter and discharge clean water.

Checklist for Clean Marina Certification:

- ✓ Do you have oil absorbent materials available when doing boat maintenance?

| YES | NO | N/A |
|-----|----|-----|
|-----|----|-----|

- ✓ Do you offer spill proof oil changes with non-spill vacuum-type systems?

| YES | NO | N/A |
|-----|----|-----|
|-----|----|-----|

Rags

Potential Environmental Impacts:

Contaminated rags that are improperly managed may pose fire, health and environmental risks. Minimizing contamination of rags reduces health risks to workers and emissions of volatile organic compounds to the air, improves effluent discharge from industrial laundries if you use launderable rags, decreases liability risks, and saves money by minimizing solvent use.

Legal Requirements:

- How used cloth rags are managed depends on what the rags are contaminated with. If the used rag is:
 - dripping with used oil, manage as used oil (see [Appendix C](#)).
 - contaminated with used oil, but not dripping, test for hazardous waste then properly manage (see [Appendix B](#)).
 - contaminated with paints or solvents, or other hazardous materials, manage as hazardous waste (see [Appendix B](#)).
 - contaminated with non hazardous materials such as waxes, polishing compounds, etc., manage as solid waste if only a small number are generated (1 or 2 per dumpster). If significant numbers of these rags are generated, however, they must be segregated and managed as Connecticut-regulated waste (see [Appendix B](#)).
 - contaminated with other material (or only with mild cleaners or soaps), dispose of in regular trash.
- If you lease rags and have them laundered, and they are contaminated with hazardous waste, you must manage them as hazardous waste until they are picked up for laundering. However, they do not require a hazardous waste manifest.
- If you choose to launder your own rags, you will need a wastewater discharge permit from the CT-DEP which authorizes you to discharge effluent to the sanitary sewer [CGS §22a-430]. Contact CT-DEP's Bureau of Water Management at (860) 424-3018 for more information.

Best Management Practices:

- ✪ Keep oily rags separate from rags that have been contaminated with hazardous materials such as solvents.
- ✪ Use cloth rags which can be recycled by an industrial laundry service.
- ✪ Contract with a permitted industrial laundry service that will pick up soiled rags and deliver clean rags on a regular basis. The laundry service may require you to limit the solvent and other chemical content of the soiled rags because of the limits on their permit to discharge wastewater into the sanitary sewer.
- ✪ Store ignitable rags in NFPA approved, labeled containers until they can be laundered.

- ✧ Reduce the amount of solvent used in cleaning through improved work practices. Use solvents only when absolutely necessary. Use non-VOC cleaners.
- ✧ Remove excess solvent from rags by wringing or pressing excess into coverable container.

Checklist for Clean Marina Certification:

No Clean Marina certification criteria specific to rags.

Refrigerants

Potential Environmental Impacts:

Refrigerants become an environmental problem when they escape into the air. Chlorofluorocarbons (CFCs, or Freon™) are gases used primarily as refrigerants in motor vehicle air conditioners, building air conditioning units, refrigerators and freezers. When CFCs are released into the air, they rise into the upper atmosphere where they damage the protective ozone layer in the stratosphere. A single CFC molecule can destroy 100,000 molecules of ozone. The ozone layer absorbs the sun's harmful ultraviolet (UV) radiation, and as it is damaged, living things on the earth become exposed to harmful UV radiation which can lead to skin cancer and cataracts.

Legal Requirements:

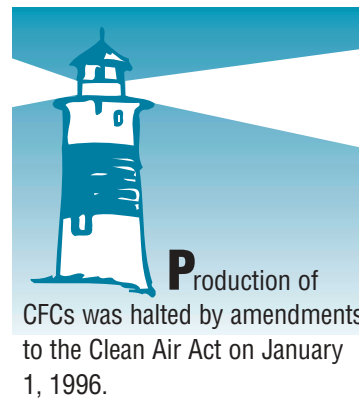
- Everyone who services air conditioners must be certified in the proper use of CFC recovery and recycling equipment [Clean Air Act, Title VI, Section 608 and 609, 40 CFR 82.34].
- The Clean Air Act prohibits release of CFCs and halons. Anyone repairing or servicing motor vehicle air conditioners must recover or recycle CFCs on-site or recover CFCs and send them off-site for recycling [40 CFR 82.34].

Best Management Practices:

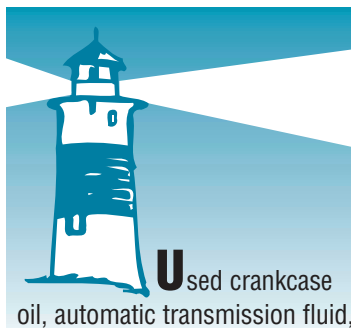
- ✦ Investigate alternatives to ozone-depleting refrigerants. These include HFC-134 (or R-134a), R-409a and R-404a.
- ✦ The EPA does not require that leaks be repaired, although it recommends that vehicle owners consider repairing leaks to reduce emissions and extend the useful life of their air conditioner. Repair of leaking systems will help vehicle owners avoid the need to continue to refill systems with high priced refrigerant.
- ✦ For more information on CFC handling, contact the EPA at (800) 821-1237, or the National CFC Hotline at (800) 296-1996, between 10:00 a.m. to 4:00 p.m. Monday through Friday, or the CT-DEP's Bureau of Air Management at (860) 424-3027.

Checklist for Clean Marina Certification:

No Clean Marina certification criteria specific to refrigerants.



Upland Engine Operations



Used crankcase oil, automatic transmission fluid, power steering fluid and hydraulic fluid are all considered used oil and can be mixed and recycled together.

Potential Environmental Impacts:

Working on boat engines has potential environmental impacts. If engine fluids are not well managed, they may be transported by stormwater into the marina basin, where they can harm fish and other aquatic life. If certain fluids are mixed, they may become subject to hazardous waste requirements and be more expensive to dispose. Waste fluids from upland engine operations may include: engine oil, transmission fluid, power steering fluid, brake fluid, hydraulic fluid and antifreeze, all of which are recyclable liquids. Many of these fluids can be hazardous, and may pick up contaminants (e.g., lead from bearings) during use in an engine.

Legal Requirements:

- A hazardous waste determination must be conducted to establish whether or not disposal of waste fluids is subject to hazardous waste regulations [40 CFR 262.11; RCSA §22a-449(c)-102(a)(2)(A)]. A hazardous waste determination must also be conducted on any materials used to clean a spill. Manage hazardous waste as described in [Appendix B](#).
- Emissions from gasoline powered motor vehicles must not be visible, and must be less than 40% opacity for diesel powered engines [RCSA §22a-174-18(a)(2)(i) and (ii)]. This does not apply to boat engines that are being repaired [RCSA §§22a-174-18(a)(4)(iii)].
- If there is a stormwater discharge from your facility, you may have to register for a *General Permit for the Discharge of Stormwater Associated with Industrial Activity* (“Stormwater General Permit”). See [Appendix F](#) for more information.
- Manage used oil as described in the “[Used Oil](#)” fact sheet.
- Manage antifreeze as described in the “[Antifreeze](#)” fact sheet.
- Manage soiled rags as described in “[Rags](#)” fact sheet.

Best Management Practices:

- ✧ Never pour waste fluids down the drain.
- ✧ Recycle fluids whenever possible. In general, the purer the waste stream, the higher the value to the recycler. Never mix gasoline, antifreeze, or chlorinated solvents into used oil because it may cause the used oil to become a hazardous waste, therefore requiring higher disposal costs.

Checklist for Clean Marina Certification:

No Clean Marina certification criteria specific to upland engine operations.

Zinc Replacement

Potential Environmental Impacts:

Sacrificial zinc anodes fight corrosion in salt water by deterring corrosion of metal hull and engine parts. Elevated levels of zinc in marina sediments have been found to be associated with boat operation and maintenance. Zinc, in high concentrations, can be toxic to marine life, and can be potentially toxic to humans who eat contaminated shellfish or fish.

Legal Requirements:

- A hazardous waste determination must be performed on waste zinc anodes being disposed of. However, if the anodes can be recycled as scrap metal, they do not have to be managed as hazardous waste. See [Appendix B](#).
- If there is a stormwater discharge from your facility, you may have to register for a *General Permit for the Discharge of Stormwater Associated with Industrial Activity* (“Stormwater General Permit”). See [Appendix F](#) for more information.

Best Management Practices:

- ♻️ Recycle zinc anodes with other scrap metals. Scrap metal dealers will take spent zinc anodes.
- ♻️ Store zinc anodes with other recyclable scrap metals in clearly marked containers protected from the elements.

Checklist for Clean Marina Certification:

No Clean Marina certification criteria specific to zinc replacement.

TAB 2: PAINTING AND FIBERGLASS REPAIR

TAB 2
PAINTING AND
FIBERGLASS REPAIR



Chris Stone

Milford Boat Works, Milford

Painting and Fiberglass Repair

QUICK REFERENCE TABLE

Use this table as a quick reference to determine what is legally required if you conduct any of the listed activities or use any of the listed products.

We suggest that you read each fact sheet before turning to the referenced legal requirement section because each individual fact sheet provides more detailed information about each activity or product used.

If the “Additional Requirements” box is checked, there are additional requirements that are not described in any appendix, but are described on the referenced fact sheet.

| ACTIVITIES OR PRODUCT USED | Fact Sheet Page # | Appendix A: Hazardous Substance Management | Appendix B: Hazardous Waste Management | Appendix C: Used Oil Management | Appendix D: Solid Waste Management | Appendix F: Stormwater General Permit* | Add'l Requirements |
|----------------------------|----------------------------------|---|---|------------------------------------|---------------------------------------|---|--------------------|
| | Abrasive Blasting | 27 | P | | P | ✓ | ✓ |
| | Compound Waxing | 28 | P | | P | ✓ | |
| | Fiberglassing | 29 | P | | ✓ | ✓ | ✓ |
| | Hull and Topside Painting | 30 | P | | ✓ | ✓ | |
| | Paint Spraying | 32 | P | | | ✓ | ✓ |
| | Paint Stripping | 34 | P | | | ✓ | |
| | Prepping & Painting Boat Bottoms | 35 | P | | P | ✓ | ✓ |
| | Scraping & Sanding | 37 | P | | P | ✓ | |
| | Teak Refinishing | 39 | P | | | ✓ | |
| | Varnishing | 40 | P | | | ✓ | |

✓ = applies P = potentially applies, see fact sheet for more information

*NOTE: All facilities classified under Standard Industrial Code (SIC) 4493 (Marina) or SIC 373 (Ship and Boat Building and Repairing), with portions of the facility involved in vehicle, boat, or equipment maintenance, fueling, and/or vehicle and boat or equipment cleaning operations, that discharge stormwater must register for a *General Permit for the Discharge of Stormwater Associated with Industrial Activity* (“Stormwater General Permit”). See Appendix F for more information.

Abrasive Blasting

Potential Environmental Impacts:

In abrasive blasting, sand, glass or plastic bead, walnut shells, metal shot or grit, sodium bicarbonate or dry ice pellets are used with air pressure or water pressure to remove paint. Traditional abrasive blasting of large boat hulls is a messy job resulting in many hundreds of pounds of spent abrasive mixed with bottom paint. While the abrasive can be relatively cheap, the labor is costly and the potential environmental impacts are large.

Legal Requirements:

- You must determine if your blasting wastes are hazardous [40 CFR 262.11; RCSA §22a-449(c)-102(a)(2)(A)]. If they are hazardous, manage as described in [Appendix B](#).
- If there is a stormwater discharge from your facility, you may have to register for a *General Permit for the Discharge of Stormwater Associated with Industrial Activity* (“Stormwater General Permit”). See [Appendix F](#) for more information.
- Perform abrasive blasting so that visible emissions do not cross outside of the property boundary or cause a nuisance [RCSA §§22a-174-18(b)(3) and (b)(4)].

Best Management Practices:

- ✧ Consider alternatives to abrasive blasting on-site, such as dustless sanders or contracting the work off-site.
- ✧ If abrasive blasting must be done, perform it within well-ventilated spray booths or plastic tarp enclosures away from the water to minimize the spreading of dust and windblown material, and to prevent residue from being carried into surface waters.
- ✧ If tarp enclosures are used, avoid blasting on windy days. Because tarps are not rigid, they do not eliminate wind flow through the blasting area, and so they allow the wind to carry blasting material and residue into surface waters.
- ✧ Prohibit uncontained blasting in the marina.
- ✧ Store spent sandblasting grit, scrapings and debris under cover in a manner that minimizes contact with process water or stormwater.
- ✧ Recycle used blast media. Investigate companies that recycle used blast media into new media or other products.

Checklist for Clean Marina Certification:

- ✓ Do you contain debris from abrasive blasting?

YES

NO

N/A

Compound Waxing

Potential Environmental Impacts:

Whether a hull is slightly oxidized or heavily oxidized and stained, whether a one or two step process is required to improve the luster of the hull, there are few environmental impacts from compounding and waxing a hull. Basic pollution prevention techniques and proper management of the substances used to restore fiberglass hulls will help keep waxes and cleaners out of the environment.

Legal Requirements:

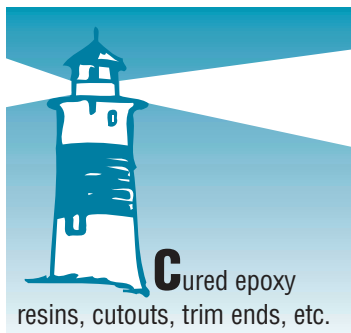
- Most stain removers, rubbing compounds and waxes are not hazardous materials, although some have hazardous constituents. If any of the products you use contain hazardous ingredients, you must determine if the waste materials that are generated are hazardous [40 CFR 262.11; RCRA §22a-449(c)-102(a)(2)(A)]. If they are hazardous, they must be managed as described in [Appendix B](#).
- If there is a stormwater discharge from your facility, you may have to register for a *General Permit for the Discharge of Stormwater Associated with Industrial Activity* (“Stormwater General Permit”). See [Appendix F](#) for more information.

Best Management Practices:

- ✦ Check all product MSDSs and purchase those which are non-hazardous.
- ✦ Conduct compounding and waxing away from the water.
- ✦ If possible, use [phosphate free, biodegradable and non-toxic soap](#) when prepping a hull. When removing tough stains, use only as much stain remover as necessary, or use a more abrasive rubbing or polishing compound.
- ✦ Manage used rags and buffing pads as described in the “[Rags](#)” fact sheet.

Checklist for Clean Marina Certification:

No Clean Marina certification criteria specific to compound waxing.



Cured epoxy resins, cutouts, trim ends, etc. may be disposed in small amounts in a dumpster as a non-hazardous solid waste.

Potential Environmental Impacts:

The processes involved in fiberglassing, whether using epoxy, polyester, or vinylester resins for small or big jobs, can have environmental impacts. Some of the materials used in the fiberglassing process can be dangerous to workers. Some resins, catalysts and the solvents used for cleanup can be flammable, irritate the skin and respiratory system, and may cause cancer.

Legal Requirements:

- Styrene, the primary component of gelcoat and other polyester resins, is an ignitable chemical. Therefore, cans or containers of waste resins may be regulated as ignitable hazardous waste [40 CFR 262.11; RCSA §22a-449(c)-102(a)(2)(A)]. Certain hardeners and accelerators may also be regulated as hazardous waste. See [Appendix B](#) for more information.
- Chlorinated solvents and the rags used to apply them must be managed as hazardous waste [40 CFR 262.11; RCSA §22a-449(c)-102(a)(2)(A)]. See [Appendix B](#) and/or the “[Rags](#)” fact sheet for more information.
- If you store over 10,000 pounds of any hazardous substance requiring an MSDS (such as a solvent), you must comply with the reporting requirements under Emergency Planning and Community Right-to-Know Act of 1986 (EPCRA) [40 CFR 355]. See [Appendix A](#) for more information.
- If you manufacture hulls or decks for recreational boats made from fiberglass or aluminum *and* emit 10 tons or more per year of any one federally designated hazardous air pollutant (HAP) like styrene, toluene, or xylene, and/or 25 tons or more per year of all HAPs combined, several EPA air emission standards must be followed [40 CFR 63, Subpart VVVV]. Contact CT-DEP’s Bureau of Air Management at (860) 424-3027 for more information.
- If there is a stormwater discharge from your facility, you may have to register for a *General Permit for the Discharge of Stormwater Associated with Industrial Activity* (“Stormwater General Permit”). See [Appendix F](#) for more information.

Best Management Practices:

- ✧ Minimize waste by working with small batches of resin.
- ✧ Avoid putting liquid hardener in the trash, since it can spontaneously combust when mixed with sawdust and other materials.

Checklist for Clean Marina Certification:

No Clean Marina certification criteria specific to fiberglassing.

Hull and Topside Painting

Potential Environmental Impacts:

Hull and topside paints may be toxic and inhalation may cause cancer. If spilled, they may harm aquatic life and water quality. Additionally, the fumes released by some paints can contribute to air pollution.

Legal Requirements:

- A hazardous waste determination must be conducted on painting wastes and any materials used to clean up spilled paint to establish whether or not their disposal is subject to hazardous waste regulations [40 CFR 262.11; RCSA §22a-449(c)-102(a)(2)(A)]. Manage hazardous waste as described in [Appendix B](#).
- Paint cans and other containers that have residues of hazardous (e.g., oil-based) paints must be handled as hazardous waste unless they have been “emptied,” which means drained of all material that can be removed from them by normal methods (e.g., pouring or pumping), AND no more than one inch (or 3% by weight) of residue remains in the container [40 CFR 261.7]. “Emptied” containers of hazardous paints and those that have dried out residues of non-hazardous (e.g., latex) paints may be recycled as scrap metal, or disposed of in the regular trash.
- Paint or varnish (any amount) that is accidentally discharged to the ground or waters of the state must be reported to the CT-DEP’s Oil and Chemical Spill Response Division at (860) 424-3338 [CGS §22a-450]. See [Appendix E](#) for more information.
- If paint or varnish that is discharged into the navigable waters of the state causes a visible sheen, it may also be necessary to report the spill to the National Response Center at (800) 424-8802 [§311 of the Clean Water Act; 33 USC 1321]. See [Appendix E](#) for more information.
- If there is a stormwater discharge from your facility, you may have to register for a *General Permit for the Discharge of Stormwater Associated with Industrial Activity* (“Stormwater General Permit”). See [Appendix F](#) for more information.

Best Management Practices:

- ✪ Store all paint in a centralized, covered area. Return all unused paints to that area and immediately and properly manage empty containers.
- ✪ Avoid the problem of having leftover paint by mixing only as much paint as is needed for a given job. Consider sharing leftover paints with customers or setting up an exchange area for customers to swap unused items.
- ✪ Limit in-water painting to interior surfaces and brightwork, where paint materials and spills can be contained and prevented from entering the water. Do not allow in-water hull scraping or any process that occurs underwater to remove paint from the boat hull.

- ✧ Although it is not advised to conduct painting while the boat is in the water, if it must be done, transfer the paint to the vessel in a small (less than one gallon), tightly covered container. Small containers mean small spills.
- ✧ Designate an upland area for debris-producing maintenance activities such as sanding and painting.
- ✧ Do as much work as possible away from the water, including mixing paints and/or cleaning brushes.
- ✧ Use tarps or drop cloths to collect drips. Weight the bottom edges of tarps and plastic sheeting to keep them in place.
- ✧ Use drip pans for all paint mixing, paint transfer, and/or equipment clean up.
- ✧ Use low-VOC, high solids content and water-based paints and surface preparation products instead of traditional paints and primers.
- ✧ Encourage the use of non-toxic, high bonding, and easily cleaned hull coatings.
- ✧ Use brushes and rollers instead of paint sprayers whenever possible, since paint spraying is potentially more wasteful and more harmful to the environment. If paint spraying must be done, see the “[Paint Spraying](#)” fact sheet.
- ✧ Reuse solvents and thinners by draining the clean product off the top once solids settle out.
- ✧ Contain and clean up spilled paint or varnish immediately.

Checklist for Clean Marina Certification:

- ✓ Do you conduct boat scraping, sanding, and other debris-producing maintenance in a designated upland maintenance area, where feasible?

YES NO N/A

Paint Spraying

Potential Environmental Impacts:

Paint spraying has potential air and water quality impacts. Most paints contain volatile organic compounds (VOCs) which evaporate quickly and are ignitable. Many paints are also toxic. When released to the atmosphere, VOCs combine with combustion emissions of nitrogen oxides (NO_x) to form ground level ozone, which damages lungs and degrades many materials. Marine paint may be toxic to aquatic and marine life.

Legal Requirements:

- No air emission permit for use of paint spray guns is required from CT-DEP as long as you maintain purchase records for the past 5 years demonstrating that you have not purchased more than 1,500 gallons of VOC containing coatings including diluents and cleanup solvents but excluding water for the premises in any calendar year [RCSA §22a-174-3c]. For more information about air emission permits, contact CT-DEP's Bureau of Air Management at (860) 424-3027.
- You must determine if your painting wastes (including leftover paints, spray gun solvents, and rags) or any materials used to clean a spill, are hazardous [40 CFR 262.11; RCSA §22a-449(c)-102(a)(2)(A)]. If they are hazardous, they must be managed as described in [Appendix B](#).
- If there is a stormwater discharge from your facility, you may have to register for a *General Permit for the Discharge of Stormwater Associated with Industrial Activity* ("Stormwater General Permit"). See [Appendix F](#) for more information.

Best Management Practices:

- ✪ Avoid unprotected paint spraying. Paint spraying may be conducted:
 - inside designated structures with ventilation and filter systems;
 - at designated shore-side areas away from open water, with temporary structures or plastic sheeting provided to minimize the spreading of overspray; or
 - in covered slips, with tarps and sheeting installed with a tight seal between the vessel being worked on and the floats or walkway surface. Prohibit paint spraying on the water without protective sheeting. Be sure to remove the protective sheeting with care to prevent loss of accumulated waste material into the water.
- ✪ If spraying outdoors with protective sheeting, avoid working on windy days when controlling the protective covering and the paint spray is difficult.
- ✪ Use spray equipment with high transfer efficiency. Paint guns used in spray booths should be either High Volume Low Pressure (HVLP) or High Efficiency Low Pressure (HELP) which are rated at 65% efficient paint transfer. HVLP guns can reduce overspray by 25% to 50%.



Electrostatic spraying also requires less pressure, produces little overspray, and uses relatively little paint.

- ✪ Encourage the use of non-toxic, high bonding, and easily cleaned hull coatings.
- ✪ Limit the amount of leftover paint and decrease solvent use by using a smaller paint spray gun cup.
- ✪ Reuse solvents and thinners by draining the clean product off the top once solids settle out.
- ✪ Whenever possible, use brushes and rollers instead of paint sprayers since paint spraying is potentially more wasteful and more harmful to the environment than applying paint by hand.

Checklist for Clean Marina Certification:

- ✓ Do you conduct all paint spraying in a protective enclosure, where practical?

YES NO N/A

- ✓ Do you use spray equipment with high transfer efficiency such as HVLP or HELP spray guns?

YES NO N/A

Paint Stripping

Potential Environmental Impacts:

Many paint strippers are solvent-based, and contain chemicals that are dangerous to humans. Some are flammable, and most can cause water and air pollution if not handled properly. Toxic chemicals in paint strippers may include methylene chloride (also called dichloromethane, or DCM), methyl ethyl ketone (or 2-Butanone), acetone, toluene, methanol, N-methylpyrrolidone (NMP), or xylene. There are some less environmentally damaging and less hazardous paint strippers available on the market.

Legal Requirements:

- A hazardous waste determination must be conducted to establish whether or not disposal of used paint strippers is subject to hazardous waste regulations [40 CFR 262.11; RCRA §22a-449(c)-102(a)(2)(A)]. A hazardous waste determination must also be conducted on any materials used to clean up a spill. Manage hazardous waste as described in [Appendix B](#).
- If there is a stormwater discharge from your facility, you may have to register for a *General Permit for the Discharge of Stormwater Associated with Industrial Activity* (“Stormwater General Permit”). See [Appendix F](#) for more information.

Best Management Practices:

- ✪ Consider alternatives to chemical paint stripping depending on the characteristics of the surface being stripped, the type of paint being removed, and the volume and type of waste produced. Alternatives include scraping, sanding, and/or abrasive blasting. Use a heat gun to remove paint and varnish where appropriate. See the “[Scraping and Sanding](#)” and “[Abrasive Blasting](#)” fact sheets for more information.
- ✪ If paint strippers must be used, use soy-based or water-based products, which are less hazardous.
- ✪ Use only the minimum amount of paint stripper needed for a job.
- ✪ Prevent evaporation by using tight fitting lids or stoppers. Reducing evaporation protects air quality, saves product and money.
- ✪ Reduce the chance of spills during transport by storing unused paint stripper where it's used most in the shop. Place the product on an impervious base.
- ✪ Encourage careful use by informing all workers and operators of the hazardous nature of solvents and the purchasing and recycling costs.
- ✪ Train employees to use less paint stripper, to properly store new and used paint strippers, to use wise clean-up procedures and prevent leaks and spills.

Checklist for Clean Marina Certification:

- ✓ Do you reduce use of solvent-based paint strippers by changing practices or product?

YES NO N/A



Replacing solvent-based paint strippers with non-hazardous alternatives may reduce your environmental liability and may [reduce your hazardous waste management requirements](#) by changing your hazardous waste generator status.

Prepping and Painting Boat Bottoms

Antifouling paint

Potential Environmental Impacts:

Most antifouling paint contains elemental copper, cuprous oxide (a copper compound), or tin oxide compounds (tributyl tin oxide) which kill organisms attempting to attach to a painted surface. By design, antifouling paints are toxic to marine life and can be absorbed by edible fish and shellfish. The toxins in antifouling paints enter the environment through spillage, sanding, sand blasting, or scraping. Antifouling paint chips left on the ground or driveway can be transported into the water by stormwater runoff. The toxicants in antifouling paint can be passed up the food chain from mussels and worms to fish, birds and humans.

Legal Requirements:

- The use of anti-fouling tributyltin (TBT) containing paints with a release rate greater than 4.0 micrograms per square centimeter per day is prohibited in the state of Connecticut [RCSA §22a-66-2(c)(4)(D)].
- The owner or agent of a commercial boatyard may possess and apply TBT-containing antifouling paint if the paint is applied only within a commercial boatyard and (i) is applied to vessels exceeding 25 meters in length, or (ii) is applied to aluminum hulls [RCSA §22a-66-2(c)(4)(C)].
- No person may use a federally restricted-use pesticide, such as TBT, except under the supervision of a certified applicator [RCSA §22a-66-3(a)]. Applicators must be certified and licensed in accordance with RCSA §22a-66-5.
- A hazardous waste determination must be conducted to establish whether or not disposal of traditionally used antifouling paints, in solid or liquid form, is subject to hazardous waste regulations [40 CFR 262.11; RCSA §22a-449(c)-102(a)(2)(A)]. A hazardous waste determination must also be conducted on any materials used to clean a spill. Manage hazardous waste as described in [Appendix B](#).
- If there is a stormwater discharge from your facility, you may have to register for a *General Permit for the Discharge of Stormwater Associated with Industrial Activity* (“Stormwater General Permit”). See [Appendix F](#) for more information.

Best Management Practices:

- ★ Switch to long-lasting, low-toxicity antifouling paint. Recommend antifouling paints containing the minimum amount of toxin necessary for the expected condition to your customers. Stock only those in the ship store.
- ★ Stay informed about antifouling products, like Teflon, silicone, polyurethane, and wax that have limited negative impacts. Pass on the information to your customers.
- ★ Discourage use of antifouling paint on boats kept in fresh water, except where invasive species like zebra mussels are a problem.

- ✧ Recommend that boats that are rack stored or trailered use alternatives to antifouling paint such as polyurethane, bottom wax, or non-metallic epoxies, since antifouling paint is not necessary for boats that are not continuously in the water.
- ✧ Use dust-collecting sanders when sanding anti-fouling paint.
- ✧ Sandblasting is not recommended for removal of antifouling paint. If sandblasting is necessary, see “[Abrasive Blasting](#)” fact sheet.
- ✧ Sweep and collect paint chips (don’t hose) immediately after scraping or sanding.
- ✧ Mix paints and solvents away from the water and prevent dripping into the water. Avoid mixing paint or cleaning brushes on open floats or other structures over the water.
- ✧ Use drip pans, tarps and sheeting to contain droppings and spilled materials. Drip pans should be used for all paint mixing, solvent transfer, or equipment clean up operations unless the operations are conducted in controlled areas away from storm drains, surface waters, shorelines, piers, docks or floats. Weight the bottom edges of tarps and plastic sheeting to keep them in place.
- ✧ Mix only enough paint necessary for a job.
- ✧ Save excess or unused antifouling paint for future uses.
- ✧ Reuse solvents and thinners by draining the clean product off the top once solids settle out.
- ✧ Prohibit in-water bottom cleaning, hull scraping, or any process which occurs underwater that could remove antifouling paint from the boat hull. Although this is a popular practice for racing boats prior to a race to reduce drag, it is impossible to treat what’s cleaned from the boat bottom.
- ✧ If in-water bottom cleaning is allowed, require that customers or contractors use only soft sponges to clean marine growth, and to use stainless steel pads or brushes only on unpainted metal areas (never on bottom paint). Colored plumes of paint in the water near underwater cleaning activity should not occur.

Checklist for Clean Marina Certification:

- ✓ Do you recommend less environmentally damaging bottom coating?

| | | |
|-----|----|-----|
| YES | NO | N/A |
|-----|----|-----|
- ✓ Do you disallow in-water hull scraping or any process that occurs underwater to remove paint from the boat hull?

| | | |
|-----|----|-----|
| YES | NO | N/A |
|-----|----|-----|
- ✓ Do you contain the dust from boat bottom prep work and sanding?

| | | |
|-----|----|-----|
| YES | NO | N/A |
|-----|----|-----|

Scraping and Sanding

Potential Environmental Impacts:

Hull paints can contain heavy metals and volatile organic compounds (VOCs). Sanding chips and dust that fall onto the ground can enter a marina basin through stormwater runoff. Paint chips and sanding debris can be particularly dangerous when shellfish ingest them, and the shellfish are ingested by other animals, including humans.

Legal Requirements:

- You must determine if your sanding dust is hazardous [40 CFR 262.11; RCSA §22a-449(c)-102(a)(2)(A)]. If it is hazardous, it must be managed as described in [Appendix B](#).
- If there is a stormwater discharge from your facility, you may have to register for a *General Permit for the Discharge of Stormwater Associated with Industrial Activity* (“Stormwater General Permit”). See [Appendix F](#) for more information.

Best Management Practices:

- ★ Conduct sanding and scraping away from the water’s edge. Designate an upland area for debris-producing maintenance such as scraping, sanding, and sandblasting. The boat maintenance area can be a temporary structure or plastic sheeting provided to minimize the spreading of dust and windblown material. The work area should be well marked with signs.
- ★ Place drop cloths or tarps under vessels when sanding or scraping. Weight the bottom edges of tarps and drop clothes to keep them in place.
- ★ Consider installing an impervious pad for conducting debris-producing maintenance.
- ★ Clean up all debris, trash, sanding dust, and paint chips immediately following any maintenance or repair activity. When sanding or grinding hulls over a paved surface, vacuuming or sweeping loose paint particles is the preferred cleanup method. Do not hose the debris away.
- ★ Avoid scraping or sanding on windy days, unless conducting activity in an enclosed maintenance structure.
- ★ Use dustless or vacuum sanders when sanding. These tools can collect over 98% of dust generated instead of releasing it into the air. Workers can use this equipment without full suits or respirators and have less cleanup when the job is done.
- ★ Require customers and contractors to use dustless or vacuum sanders. Rent or loan the equipment to them.
- ★ Post signs indicating the availability of the dustless or vacuum sanders.
- ★ Provide a collection drum for the dust from vacuum sanders and other scraping debris.

- ✪ Restrict or prohibit sanding and scraping boats which are in the water, to the greatest extent practicable.
- ✪ If sanding, scraping or grinding must take place while the boat is in the water, use tarps and sheeting installed between the vessel being worked on and the floats or walking surface to prevent dust, paint chips, debris, or other materials from falling or being blown into the water. The sheeting should have a tight seal to the vessel and adjacent surfaces to prevent leakage of particulates outside the work area. Remove the sheeting carefully to prevent the loss of accumulated waste material into the water.

Checklist for Clean Marina Certification:

- ✓ Do you put tarps or drop clothes under boats to catch chips and drips while scraping, sanding and painting boats on the upland?

YES NO N/A

Teak Refinishing

Potential Environmental Impacts:

Teak cleaners which contain acids and caustics can be toxic to marine life when spilled in the water.

Legal Requirements:

- A hazardous waste determination must be conducted for spent teak cleaner, and for any materials used to clean a spill [40 CFR 262.11; RCSA §22a-449(c)-102(a)(2)(A)]. If hazardous, spent teak cleaner must be managed as described in [Appendix B](#).
- If there is a stormwater discharge from your facility, you may have to register for a *General Permit for the Discharge of Stormwater Associated with Industrial Activity* (“Stormwater General Permit”). See [Appendix F](#) for more information.

Best Management Practices:

- ✦ Avoid teak cleaners containing acids (such as phosphoric acid or oxalic acid), or those labeled “caustic, corrosive, or acidic.” Clean teak with a mild, phosphate-free detergent with bronze wool, if possible.
- ✦ If sanding teak, use a dustless or vacuum sander.
- ✦ If possible, conduct teak refinishing in upland maintenance area. If not possible, use safer cleaners and avoid flushing excess teak cleaner and teak oil into the marina basin.

Checklist for Clean Marina Certification:

No Clean Marina certification criteria specific to teak refinishing.

Varnishing

Potential Environmental Impacts:

Spills of oil-based varnishes may be detrimental to the marine and aquatic environment. Since they are petroleum-based, spills may have similar impact as oil spills. Chemicals in varnishes can be highly flammable and potentially harmful to human health.

Legal Requirements:

- Many varnishes are composed of hazardous materials. You must determine if your waste varnish is hazardous [40 CFR 262.11; RCRA §22a-449(c)-102(a)(2)(A)]. A hazardous waste determination must also be conducted for any materials used to clean a spill. Manage hazardous waste as described in [Appendix B](#).
- If there is a stormwater discharge from your facility, you may have to register for a *General Permit for the Discharge of Stormwater Associated with Industrial Activity* (“Stormwater General Permit”). See [Appendix F](#) for more information.

Best Management Practices:

- ✧ Avoid the disposal problem of leftover varnish by mixing only as much as is needed for a given job. Consider sharing leftover varnishes with customers or setting up an exchange area for customers to swap unused items.
- ✧ Use less hazardous, water-based varnishes which pose less of a threat to human health or the environment.
- ✧ In case of spills of varnish on land, use absorbent material to clean it up, and collect any contaminated soils. Spills in waterways should be contained and mopped up with booms or pads that repel water but absorb petroleum.

Checklist for Clean Marina Certification:

No Clean Marina certification criteria specific to varnishing.

TAB 3: HAULING AND STORING BOATS



Kim Czapla

Brewer Yacht Yard at Mystic

Hauling & Storing Boats

QUICK REFERENCE TABLE

Use this table as a quick reference to determine what is legally required if you conduct any of the listed activities or use any of the listed products.

We suggest that you read each fact sheet before turning to the referenced legal requirement section because each individual fact sheet provides more detailed information about each activity or product used.

If the “Additional Requirements” box is checked, there are additional requirements that are not described in any appendix, but are described on the referenced fact sheet.

| ACTIVITIES OR PRODUCT USED | Fact Sheet Page # | Appendix A: Hazardous Substance Management | Appendix B: Hazardous Waste Management | Appendix C: Used Oil Management | Appendix D: Solid Waste Management | Appendix F: Stormwater General Permit* | Add'l Requirements |
|-------------------------------|---------------------|---|---|------------------------------------|---------------------------------------|---|--------------------|
| | Bilge Cleaning | 41 | P | ✓ | | ✓ | |
| | Boat Disposal | 43 | P | P | ✓ | | |
| | Pressure Washing | 44 | | | | ✓ | |
| | Pumpouts | 46 | | | | | P |
| | Shrink Wrap | 48 | | | ✓ | | |
| | Winterizing Vessels | 49 | P | P | | ✓ | |

✓ = applies P = potentially applies, see fact sheet for more information

*NOTE: All facilities classified under Standard Industrial Code (SIC) 4493 (Marina) or SIC 373 (Ship and Boat Building and Repairing), with portions of the facility involved in vehicle, boat, or equipment maintenance, fueling, and/or vehicle and boat or equipment cleaning operations, that discharge stormwater must register for a *General Permit for the Discharge of Stormwater Associated with Industrial Activity* (“Stormwater General Permit”). See Appendix F for more information.

Bilge Cleaning

Potential Environmental Impacts:

Bilge water can commonly contain oil, fuel, antifreeze, and other contaminants. Even small amounts of such materials introduced into the marina environment can cause environmental problems, especially if they persist. Although some oil that spills into the water evaporates, petroleum hydrocarbons can remain suspended in the water column, concentrate on the surface, or settle to the bottom. An oil sheen can block necessary oxygen and light from moving through the surface of the water. According to the EPA, the hydrocarbons in oil harm juvenile fish, upset fish reproduction, and interfere with the growth and reproduction of bottom-dwelling organisms.

Legal Requirements:

- Oily bilge water that is discharged to the waters of the state must be reported to the CT-DEP's Oil and Chemical Spill Response Division at (860) 424-3338 [CGS §22a-450]. See [Appendix E](#) for more information on reporting spills.
- If oily bilge water or any petroleum product that is discharged into navigable waters causes a visible sheen, it may also be necessary to report the spill to the National Response Center at (800) 424-8802 [Section 311 of the Clean Water Act; 33 USC 1321]. See [Appendix E](#) for more information on reporting spills.
- If oily bilge water cannot be sufficiently cleaned for legal discharge, make arrangements with a waste hauler to properly dispose of the bilge water. See [Appendix C](#).
- The use of dispersants, such as dishwashing soaps or detergents, on oil or fuel spills or sheen of any size is prohibited in most circumstances [40 CFR 110.4]. Dispersants may only be used with permission from federal or state authorities, and only in rare instances.
- If there is a stormwater discharge from your facility, you may have to register for a *General Permit for the Discharge of Stormwater Associated with Industrial Activity* ("Stormwater General Permit"). See [Appendix F](#) for more information.

Best Management Practices:

- ✧ Before pumping out a bilge, visually inspect the bilge water to determine whether there is a visible sheen of oil.
- ✧ Use oil absorbent materials to remove oil before pumping a bilge.
- ✧ Use an oil/water separator to remove oil from bilge water.
- ✧ Don't use soaps and detergents to clean up oily bilge water.
- ✧ Educate customers to keep their engines properly maintained, to continually check and fix all leaks, and to keep an absorbent pad or pillow in the bilge to absorb small drips and spills.

Checklist for Clean Marina Certification:

| | | | |
|---|-----|----|-----|
| ✓ Do you provide an oil/water separation service to remove oil from bilge water? | YES | NO | N/A |
| ✓ Do you place oil absorbent materials in boat bilges as a standard maintenance practice? | YES | NO | N/A |
| ✓ Do you provide staff training on bilge cleaning? | YES | NO | N/A |

Boat Disposal



Some non-profit organizations operate tax deductible boat donation programs for boats in good repair. Some organizations to consider include: American Lung Association, Connecticut Chapter, (800) LUNGUSA; University of Rhode Island Foundation, (401) 874-5273; Connecticut River Museum, (860) 767-8269.

Potential Environmental Impacts:

Sunken or abandoned vessels can pose environmental and safety risks by leaking oil and fuel in a concentrated area. They can also cause navigational and safety hazards. If boats are properly disposed of before they become unseaworthy, the chances that the vessel will become an environmental risk are reduced.

Legal Requirements:

- Dispose of boats at a permitted solid waste landfill or transfer station [CGS §§22a-207b, 208a, 248, 250].
- Removal of derelict vessels which are resting on the bottom waterward of the high tide line requires prior authorization from CT-DEP [CGS §22a-363b(5)]. Contact CT-DEP's OLISP at (860) 424-3034 for more information.

Best Management Practices:

- ✦ Empty the boat's fuel tanks and reuse or dispose of used gasoline as hazardous waste.
- ✦ Remove and recycle the following boat parts and fluid:
 - used oil
 - used antifreeze
 - boat engine (recycle as scrap metal)
 - any metal with reuse value, such as lead, zinc, aluminum
 - refrigerants
- ✦ Remove all mercury containing devices (i.e., some electronic equipment, bilge pump switches, old ship's barometers) and handle as hazardous waste. If removed by the boater, the mercury containing devices can be managed as household hazardous waste. Otherwise, see Appendix B for information on hazardous waste management.
- ✦ Reduce the size of the hull into smaller pieces as directed by the solid waste facility. The smaller the pieces, the easier it is for the facility to take.
- ✦ Abandoned boats may be sold. The procedure is described in CGS §15-140c, and CGS §49-55a and 55b. Call CT-DEP's Boating Division at (860) 434-8638 for more information.

Checklist for Clean Marina Certification:

No Clean Marina certification criteria specific to boat disposal.

Pressure Washing

Potential Environmental Impacts:

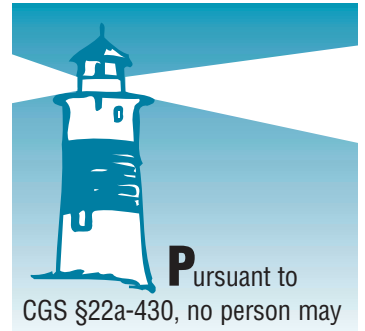
When the marine organisms that accumulate on the bottom of a vessel are removed, fragments of bottom paint and hull materials are often chipped off in the process. In a concentrated form, these untreated particles can have localized water quality impacts. Pressure washing in particular removes antifouling paint from boat bottoms, which can get washed into the marina basin. Sediments contaminated with copper can also cause problems related to dredge material disposal.

Legal Requirements:

- If there is a stormwater discharge from your facility, you may have to register for a *General Permit for the Discharge of Stormwater Associated with Industrial Activity* (“Stormwater General Permit”). See [Appendix F](#) for more information.

Best Management Practices:

- ✳ Prohibit in-water bottom cleaning or hull scraping or any process that occurs underwater to remove antifouling paint from the boat hull. This is a popular practice for racing sailboats prior to a race to reduce drag. However, the practice makes it impossible to treat what’s cleaned from the boat bottom.
- ✳ The first priority for the marina facility is to keep the washwater free of soaps or other additives, collect all of the washwater, treat it, and discharge to sanitary sewer or store for hauling to a sewage treatment plant. Discharge to the sanitary sewer requires local water pollution control authority approval. See treatment options below.
- ✳ Minimize the amount of water used when boats are pressure washed out of the water. For example, wash the hull above the waterline by hand.
- ✳ If collecting and treating washwater is not feasible, wash boats on a level permeable surface (lawn, crushed stone, or sand) so that the wash water can infiltrate into the ground, if there is no drinking water well on the property. Place filter fabric over the permeable surface to collect solids and sediments. A hazardous waste determination should be conducted on collected pressure wash wastewater to establish whether or not disposal of the collected material is subject to hazardous waste regulations [40 CFR 262.11; RCSA §22a-449(c)-102(a)(2)(A)]. Manage hazardous waste as described in [Appendix B](#).
- ✳ To ensure that the washwater has enough time to settle into the ground, pressure wash boats as far away as possible from the water, preferably over a grassed or otherwise vegetated area. Add a row of hay bales between the water’s edge and the pressure washing operation.
- ✳ If it is not possible to wash boats over a pervious surface, pump the wash water to a pervious surface for infiltration.



Pursuant to CGS §22a-430, no person may initiate, create, originate, or maintain any discharge of water, substance, or material into the waters of the state without a permit for such discharge from the CT-DEP. Avoid this permit process for pressure wash wastewater discharges to surface waters or a stormdrain by following the BMP's identified in this fact sheet.

- ✧ If there is a well nearby, pressure wash boats on an impervious surface as far as possible from the well, and treat the washwater to collect solids and sediments before discharge, preferably to the sanitary sewer.
- ✧ Pressure wash water can also be directed to a holding or settling tank for treatment. If the wastewater does not contain chemical additives, it may be diverted into wetpond detention basins, vegetated buffers, or swales.
- ✧ Where feasible, wastewater from the washing operation can be collected and reused through a closed loop pressure wash system, or can be used after treatment to irrigate landscaped portions of the marina.
- ✧ If none of the above-mentioned practices is feasible and the only apparent option is to discharge pressure washing wastewater to a surface water or storm drain, wash water should be treated prior to discharge. Options for treatment include filtering the washwater through catch basin inserts that will separate out debris, paint chips, and sediment. The use of filter fabric, oil/water separators or sand filters should also be considered. Contact the CT-DEP's Bureau of Water Management at (860) 424-3018 for more information regarding pressure washing wastewater discharges to surface waters or storm drains.

Checklist for Clean Marina Certification:

- ✓ Do you treat pressure wash water before discharge, as described in this fact sheet?

YES NO N/A

Pumpouts

Potential Environmental Impacts:

Generally, marina basins are naturally sheltered and semi-enclosed, which usually means they are not flushed as well as more open waters. Bacteria, chemicals, and nutrients contained in untreated and minimally treated human waste from boats can overload small, poorly flushed waterways and may cause local water quality problems. Disease carrying bacteria, viruses and protozoa can enter waterways through the discharge of untreated or poorly treated boat waste. The nutrients in boat sewage can stimulate algae to grow in such large numbers that their decomposition uses up oxygen necessary for fish to live. Direct threats to human health can arise through consumption of contaminated water, fish or shellfish. Scientists have shown there is more bacteria in the untreated waste discharged by one boat than in the treated wastewater discharged by a small city.

Legal Requirements:

- There is no legal requirement for marinas in Connecticut to provide a pumpout facility. However, it may be a condition of a CT-DEP permit for a new or expanded marina to provide a pumpout facility for customers and the boating public. Regardless of possible permit conditions, more and more boaters are starting to demand pumpout facilities, so it makes sense to provide customers with convenient and affordable service.

Best Management Practices:

- ✪ If your marina services boats with holding tanks, install a pumpout. Select the type of pumpout system that meets the needs of your marina, your customers and transients:
 - Permanently fixed to the dock, or
 - Mobile, hand truck, trailer mounted units, or pumpout boat
- ✪ If the pumpout is permanently fixed, choose an appropriate location which is convenient and accessible to the most number of boats throughout the tidal cycle:
 - Gas dock
 - T-head
 - Separate bulkhead
- ✪ If your marina services mostly smaller boats without holding tanks, install a portable toilet holding tank waste receptacle (dump station) in a convenient location near small slips and launch ramps.
- ✪ Signs identifying pumpout stations are available free of charge from CT-DEP's OLISP at (860) 424-3034.
- ✪ Train staff to operate the pumpout. Boaters rely on functional pumpout facilities.



Use Clean Vessel Act (CVA) funds to defray costs of installing and operating a coastal pumpout. Coastal marinas are eligible for reimbursement for up to 75% of the costs of installation and operation and maintenance of pumpouts through the CVA program. CVA funds may be available for inland pumpouts by the 2004 boating season. For more information, contact CT-DEP's Office of Long Island Sound Programs (OLISP) at (860) 424-3034.

- ★ Upland waste holding tanks, if above ground, should be secured and have a secondary containment area, including a concrete pad. Inspect area regularly.
- ★ Provide clean and attractive bathrooms for marina customers. Encourage customers to use them rather than the toilets on their boats.
- ★ Prohibit discharge of treated or untreated human waste within the marina basin. Incorporate the prohibition into customers’ slip contract. This would prohibit boaters from discharging any sewage into the marina basin. For this to work, there must be adequate pumpout services, customers must be educated about how to manage their boat waste, and there must be strict enforcement.
- ★ Educate marina customers about the impacts of boat sewage and the proper way to manage it. Post signs in the marina outlining the rules for proper sewage handling.
- ★ Provide and promote biodegradable and non-toxic holding tank deodorant. Sell it in the ships store.
- ★ Encourage the boaters at your facility with marine heads to install holding tanks.
- ★ Allow pumpout boats to service customers in your facility.
- ★ Support adoption of a federally-designated No Discharge Area in your region.

Checklist for Clean Marina Certification:

| | | | |
|--|-----|----|-----|
| ✓ Do you offer affordable, convenient pumpout facilities to customers and/or the general public? | YES | NO | N/A |
| ✓ Do you provide clean bathrooms for customers? | YES | NO | N/A |

Shrink Wrap

Potential Environmental Impacts:

Shrink wrap is a low-density polyethylene cocoon used to protect boats during the winter. Shrink wrap is not biodegradable, and can become a disposal problem at landfills or trash to energy plants.

Legal Requirements:

- Shrink wrap must be managed as solid waste [CGS §22a-207(3)]. See Appendix D for more information.

Best Management Practices:

- ★ Use and encourage customers to use reusable or recyclable boat covers.
- ★ Recycle used plastic covers. Check if your shrink wrap manufacturer will recycle their used product. Some companies recycle used shrink wrap. The following list is not comprehensive and the CT-DEP does not endorse these vendors or services over any others:
 - Buffalo Shrink Wrap, 11342 Main Street, East Amherst, NY 14051, (800) 792-8819, www.buffaloshrinkwrap.com
 - Dockside Boat Reconditioning, (401) 351-7130, (800) 898-7206, www.canvaslink.com/cnews.htm
 - Dr. Shrink, 1606 State Street, Manistee, MI 49660-1855, (800) 968-5147, dfshrink@dr-shrink.com, or www.dr-shrink.com
- ★ Coordinate a regional recycling pickup of used shrink wrap with your waste hauler.

Checklist for Clean Marina Certification:

- ✓ Do you recycle used shrink wrap or encourage customers to cover their boats with reusable material?

YES NO N/A



shrink wrap may reduce overall waste disposal costs, and may prevent future regulations limiting shrink-wrap usage and disposal.



Vessel storage may be subject to local building codes, zoning ordinances, and fire codes. Check with municipal building department for requirements.

Winterizing Vessels

Potential Environmental Impacts:

The activity of preparing a vessel for winter storage may contribute to nonpoint source pollution through the use of heavy equipment (fork lifts, cranes and travel lifts) as well as through various storage procedures (use of antifreeze and battery storage).

Legal Requirements:

- Please see referenced fact sheets for legal requirements for specific winterizing activities.

Best Management Practices:

- ★ Use propylene glycol antifreeze (usually pink) which is less toxic than ethylene glycol (usually green) to winterize all systems except “closed” or freshwater cooling systems. See “[Antifreeze](#)” fact sheet for more information.
- ★ Inspect and clean bilges prior to extended vessel storage. Clean all water, oil, or foreign materials from the bilge using absorbent material. See “[Bilge Cleaning](#)” fact sheet for more information.
- ★ Promote reusable or recyclable boat covers. See “[Shrink Wrap](#)” fact sheet for more information.
- ★ See also “[Pressure Washing](#),” “[Decommissioning Engines](#),” “[Oil Changes](#)” and “[Battery Replacement](#)” fact sheets for more information on these activities.

Checklist for Clean Marina Certification:

No Clean Marina certification criteria specific to winterizing vessels.

TAB 4: FUELING



Elke Sutt

Cedar Island Marina, Clinton

Fueling

QUICK REFERENCE TABLE

Use this table as a quick reference to determine what is legally required if you conduct any of the listed activities or use any of the listed products.

We suggest that you read each fact sheet before turning to the referenced legal requirement section because each individual fact sheet provides more detailed information about each activity or product used.

If the “Additional Requirements” box is checked, there are additional requirements that are not described in any appendix, but are described on the referenced fact sheet.

| ACTIVITIES | | Fact Sheet Page # | Appendix A: Hazardous Substance Management | Appendix B: Hazardous Waste Management | Appendix C: Used Oil Management | Appendix D: Solid Waste Management | Appendix F: Stormwater General Permit* | Additional Requirements |
|------------|---------------------------|-------------------|---|---|------------------------------------|---------------------------------------|---|-------------------------|
| | Fuel Storage | 51 | P | ✓ | | | ✓ | ✓ |
| | Fuel Tank Disposal | 53 | | ✓ | | ✓ | ✓ | ✓ |
| | Fueling Station Operation | 54 | | ✓ | | | ✓ | ✓ |

✓ = applies P = potentially applies, see fact sheet for more information

*NOTE: All facilities classified under Standard Industrial Code (SIC) 4493 (Marina) or SIC 373 (Ship and Boat Building and Repairing), with portions of the facility involved in vehicle, boat, or equipment maintenance, fueling, and/or vehicle and boat or equipment cleaning operations, that discharge stormwater must register for a *General Permit for the Discharge of Stormwater Associated with Industrial Activity* ("Stormwater General Permit"). See Appendix F for more information.

Potential Environmental Impacts:

Fuel spills are very damaging to the marina environment. According to the EPA, the complex hydrocarbon compounds in oil and gasoline are toxic to marine life, upset fish reproduction and interfere with growth and reproduction of bottom dwelling organisms.

Legal Requirements:

- If your facility stores 10,000 pounds or more of gasoline, diesel fuel, and/or fuel oil, either above- or underground for dispensing or for on-site use, you must report storage of that substance under the Emergency Planning and Community Right-to-Know Act of 1986 [42 USC 11001, and 42 CFR 355]. For specific reporting requirements, see [Appendix A](#).
- Both above and underground storage tanks and their piping systems are subject to the National Fire Protection Association's (NFPA) *Automotive and Marine Service Station Code* (NFPA 30A). These requirements are adopted locally. Check with your municipal fire marshal for local requirements, or contact the State Fire Marshall's Office at (860) 685-8350.
- **Underground Petroleum Storage:** Tanks with ten percent or more of total volume below grade (including the volume of connected underground pipes) are considered Underground Storage Tanks (USTs) and must meet certain requirements, which were promulgated November 1, 1985 [RCSA §22a-449(d)-1 and §§22a-449(d)-101-113]. The general requirements are that:
 - 1) the tank and piping be constructed of noncorrosive materials or externally coated cathodically protected steel and installed according to manufacturer's specifications;
 - 2) the facility has an approved method of leak detection which includes the maintenance of all activity records for 5 years;
 - 3) fill-pipes on tanks have means to collect spills from delivery hoses;
 - 4) the tanks have overfill protection, such as automatic shutoff devices which activate at 90% UST capacity and restrict flow during deliveries;
 - 5) the tank be registered with the CT-DEP and the local fire marshal (on the Form EPHM-6); and
 - 6) if a facility has a total underground buried storage capacity of more than 42,000 gallons of petroleum product, it may require a Spill, Prevention, Control, and Countermeasure (SPCC) Plan [40 CFR 112.1]. See [Appendix E](#) for more information.

There are additional requirements for facility owners or operators when they are closing USTs through removal or in-place abandonment [RCSA §22a-449(d)-107]. Contact CT-DEP's Underground Storage Tank Program at (860) 424-3374 for more information.

- **Aboveground Petroleum Storage:** If your facility stores a certain amount of gas or oil in aboveground tanks (total aggregate volume greater than 1,320

gallons) it may require an SPCC Plan [40 CFR 112.1], which outlines a facility-wide plan to prevent spills and contingency plans in case of spills. The aboveground storage tank should be located within a dike or over an impervious storage area with containment volumes equal to 110% of the capacity of the storage tank. See the Appendix E for more information.

- **Gasoline Storage:** All gasoline storage tanks with a capacity of 250 gallons or more are subject to the Stage I Regulations for reduction of the impacts of gasoline vapors on air quality. Under Stage I Regulations, all storage tanks with a capacity of 250 gallons (950 liter) or more which contain any “volatile organic compound” with a vapor pressure of 1.5 pounds per square inch or greater under actual storage conditions must have a permanent “submerged fill pipe” with a discharge point eighteen (18) inches or less from the bottom of the storage vessel unless it is a pressure “tank” as described in RCSA §22a-174-20(a)(2). Tanks which are exempt from this regulation are those that have a capacity of less than 1,000 gallons which were installed prior to June 1, 1972, and underground tanks which were installed before June 1, 1972 and have an “offset fill pipe” [RCSA §§22a-174-20(a)(3) and (4)]. Stage II Vapor Recovery requirements do not apply to marine service stations. For more information, contact CT-DEP’s Bureau of Air Management at (860) 424-3027.
- Any fuel spilled to the waters of the state must be reported to the CT-DEP’s Oil and Chemical Spill Response Division at (860) 424-3338 [CGS §22a-450]. See [Appendix E](#) for state and federal spill reporting requirements.
- If the fuel that is discharged into navigable waters causes a visible sheen, it may also be necessary to report that spill to the National Response Center at (800) 424-8802 [§311 of the Clean Water Act; 33 USC 1321]. See [Appendix E](#) for the state and federal spill reporting requirements.
- A hazardous waste determination must be conducted on any materials used to clean a spill to determine whether or not disposal of the materials is subject to hazardous waste regulations [40 CFR 262.11; RCSA Section 22a-449(c)-102(a)(2)(A)]. Manage hazardous waste as described in [Appendix B](#).
- If there is a stormwater discharge from your facility, you may have to register for a General Permit for the Discharge of Stormwater Associated with Industrial Activity (“Stormwater General Permit”). See [Appendix F](#) for more information.

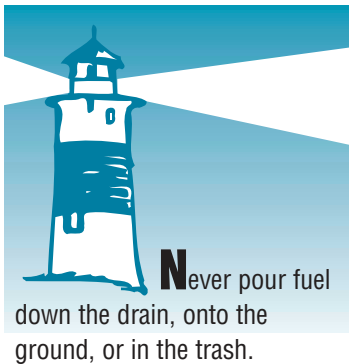
Best Management Practices:

- ✪ Keep all information about registered underground storage tanks, subsequent updates from CT-DEP, and maintenance records in file in a central location.
- ✪ Regularly inspect aboveground fuel storage tanks and associated piping for leaks.
- ✪ If possible, cover the tank with a roof to prevent rainwater from filling the containment area.

Checklist for Clean Marina Certification:

- ✓ Do you regularly inspect and repair fuel transfer and storage equipment?

YES NO N/A



Fuel Tank Disposal

Potential Environmental Impacts:

According to the EPA, the complex hydrocarbon compounds in petroleum products are toxic to marine life, upset fish reproduction and interfere with growth and reproduction of bottom dwelling organisms. Improperly disposed fuel tanks can also impact groundwater supplies and pose a serious fire safety risk.

Legal Requirements:

- If a portable or fixed tank for gasoline or an oil and gasoline mixture is empty, meaning drained of all material that can be removed from the container by normal methods like pouring or pumping, AND no more than one inch (or 3% by weight) of residue remains in the container, it can be disposed of as regular solid waste or can be recycled as scrap metal [40 CFR 261.7]. If a tank is not empty, it must be disposed of as hazardous waste [40 CFR 262.11; RCRA Section 22a-449(c)-102(a)(2)(A)]. See [Appendix B](#) for more information.
- Prior to closing underground storage tanks (UST) through removal or in-place abandonment, you must notify CT-DEP. You can either remove USTs and dispose of them as scrap metal, or you can remove the product and fill the tank with inert solid material and leave it in place following the provisions specified in the National Fire Protection Association Code 30. You are required to perform representative soil sampling, which includes sampling each of the four sidewalls of the tank grave and the bottom of the tank grave along the centerline of the excavated UST. Samples need to be taken from soils below the level of the bottom of the UST. Owners and/or operators must maintain records of the sample results [RCRA Section 22a-449(d)-107]. For more information on UST closure, contact CT-DEP's Underground Storage Tank Program at (860) 424-3374.
- If there is a stormwater discharge from your facility, you may have to register for a *General Permit for the Discharge of Stormwater Associated with Industrial Activity* ("Stormwater General Permit"). See [Appendix F](#) for more information.

Best Management Practices:

- ★ Use, recondition or recycle all usable fuel before disposing of the tank.
- ★ Store tanks awaiting disposal away from ignition sources like heat or sparks.
- ★ Clearly label tanks "Waste Gasoline."

Checklist for Clean Marina Certification:

No Clean Marina certification criteria specific to fuel tank disposal.

Fueling Station Operation

Potential Environmental Impacts:

The small spills that occur during boat fueling can accumulate and become a much larger problem. According to the EPA, complex hydrocarbon compounds in oil and gasoline are toxic to marine life, upset fish reproduction and interfere with growth and reproduction of bottom dwelling organisms. Oil and gas that are ingested by one animal can be passed to the next animal that eats it. In a marina, petroleum will also deteriorate the white Styrofoam in floats and docks, and discolor boat hulls, woodwork and paint. Gasoline spills are also a safety problem because of the product's flammability. A single pint of petroleum product released into the water can cover one acre of water surface area and can seriously damage aquatic habitat.

Legal Requirements:

- All marine service stations are subject to the National Fire Protection Association's (NFPA) *Automotive and Marine Service Station Code* (NFPA 30A). These requirements are adopted locally. Check with your municipal fire marshal for local requirements, or contact the State Fire Marshall's Office at (860) 685-8350.
- The following requirements are listed in NFPA 30A as pertaining to marine service stations. It is not intended to be a complete list of requirements:
 - Dispensing nozzles must be of the automatic-closing type without a latch-open device or holding clip [NFPA 30A, Section 10-4.2].
 - All marine service stations must be attended by an employee responsible for supervising, observing, and controlling the dispensing of liquids whenever the station is open for business [NFPA 30A, Section 10-4.7].
 - At least one fire extinguisher with the minimum classification of 40-B:C must be located within 100 feet of each pump, dispenser, and pier-mounted liquid storage tank [NFPA 30A, Section 10-8.1].
 - Signs with the following legends printed in 2-inch (5cm), red block capital letters on a white background must be posted in the dispensing area of all marine service stations [NFPA 30A, Section 10-11.8]:

BEFORE FUELING:

- (a) Stop all engines and auxiliaries
- (b) Shut off all electricity, open flames and heat sources
- (c) Check all bilges for fuel vapors
- (d) Extinguish all smoking materials
- (e) Close access fittings and openings that could allow fuel vapors to enter enclosed spaces of the vessel

DURING FUELING:

- (a) Maintain nozzle contact with fill pipe
- (b) Wipe up spills immediately
- (c) Avoid overfilling
- (d) Fuel filling nozzle must be attended at all times

AFTER FUELING:

- (a) Inspect bilges for leakage and fuel odors
- (b) Ventilate until odors are removed

- If your facility stores a certain amount of gas or oil, it may require a Spill Prevention Control and Countermeasure (SPCC) Plan [40 CFR 112]. See [Appendix E](#) for more information.
- Any fuel spill to the waters of the state must be reported to the CT-DEP's Oil and Chemical Spill Response Division at (860) 424-3338 [CGS §22a-450]. See [Appendix E](#) for state and federal spill reporting requirements.
- If the fuel that is discharged into navigable waters causes a visible sheen, it may also be necessary to report that spill to the National Response Center at (800) 424-8802 [Section 311 of the Clean Water Act; 33 USC 1321]. See [Appendix E](#) for the state and federal spill reporting requirements.
- A hazardous waste determination must be conducted for any materials used to clean a spill to establish whether or not disposal of the materials is subject to hazardous waste regulations [40 CFR 262.11; RCRA §22a-449(c)-102(a)(2)(A)]. See [Appendix B](#) for more information.
- If there is a stormwater discharge from your facility, you may have to register for a *General Permit for the Discharge of Stormwater Associated with Industrial Activity* ("Stormwater General Permit"). See [Appendix F](#) for more information.

Best Management Practices

- ★ Locate fuel docks in protected areas to reduce potential for accidents due to passing boat traffic, and design them so that spill containment equipment can be easily deployed to surround a spill and any boats that may be tied to the fuel dock.
- ★ Store spill containment and control materials in a clearly marked and easily accessible location, attached or adjacent to the fuel dock.
- ★ Keep oil absorbent pads and pillows available at the fuel dock for staff and customers to mop up drips and small spills.
- ★ Carry vent line whistles, vent cups, oil absorbent fuel collars and other fuel spill preventative devices in your ships store.
- ★ Provide a stable platform for fueling personal watercraft, if your facility services significant numbers of them.
- ★ Routinely inspect and repair fuel transfer equipment, such as hoses and pipes.
- ★ Place plastic or nonferrous drip trays lined with oil absorbent materials beneath fuel connections.
- ★ Train fuel dock staff to handle and dispense fuel properly. Many drips and small spills originate at the fuel dock. Fuel dock staff should be trained to:
 - Fill tanks slowly and carefully
 - Prevent overfilling of gas tanks by listening to or keeping a hand at the air vent, if possible; a pronounced flow of air is emitted when the tank is nearly full

- Remember that fuel expands in warm weather and to leave at least 5% of space in a fuel tank to allow for that expansion
- Attach a container to the external vent fitting to collect overflow, as a precautionary measure. Several products attach to the boat with suction cups
- Keep an absorbent pad or pillow ready to catch spills, drips, or overflow
- Put a drip pan under portable fuel tanks. If possible, fill portable fuel tanks ashore
- Prevent spills as well as respond to spills
- Give information and direction to customers

Checklist for Clean Marina Certification:

- ✓ Do you train fuel dock staff to prevent drips and spills at the fuel dock?

YES NO N/A

- ✓ Do you have oil absorbent material available for fuel dock staff and customers to clean up drips and small spills?

YES NO N/A

- ✓ Do you carry vent line whistles, vent cups, absorbent fuel collars or other fuel spill preventative devices in your ships store?

YES NO N/A

TAB 5: FACILITY MANAGEMENT



Kim Czapla

Chrisholm Marina, Chester

Facility Management

QUICK REFERENCE TABLE

Use this table as a quick reference to determine what is legally required if you conduct any of the listed activities or use any of the listed products.

We suggest that you read each fact sheet before turning to the referenced legal requirement section because each individual fact sheet provides more detailed information about each activity or product used.

If the “Additional Requirements” box is checked, there are additional requirements that are not described in any appendix, but are described on the referenced fact sheet.

| ACTIVITIES OR PRODUCT USED | Fact Sheet Page # | Appendix A: Hazardous Substance Management | Appendix B: Hazardous Waste Management | Appendix C: Used Oil Management | Appendix D: Solid Waste Management | Appendix F: Stormwater General Permit* | Add'l Requirements |
|----------------------------|------------------------------------|---|---|------------------------------------|---------------------------------------|---|--------------------|
| | Coastal Permits | 57 | | | | | ✓ |
| | Compressor Blowdowns | 59 | | P | | | ✓ |
| | Facility Cleaning | 60 | | | | | |
| | Fish Waste | 62 | | | P | | P |
| | Floor Drains | 63 | P | P | | | ✓ |
| | Landscaping | 64 | P | | ✓ | | |
| | Litter and Recycling | 66 | | | ✓ | | |
| | Pet Waste | 68 | | | | | P |
| | Stormwater Runoff Mngmt. Practices | 69 | | | | ✓ | |
| | Swimming Pool Backwash | 71 | | | | | ✓ |

✓ = applies P = potentially applies, see fact sheet for more information

*NOTE: All facilities classified under Standard Industrial Code (SIC) 4493 (Marina) or SIC 373 (Ship and Boat Building and Repairing), with portions of the facility involved in vehicle, boat, or equipment maintenance, fueling, and/or vehicle and boat or equipment cleaning operations, that discharge stormwater must register for a *General Permit for the Discharge of Stormwater Associated with Industrial Activity* (“Stormwater General Permit”). See Appendix F for more information.



A permittee is allowed to conduct “routine maintenance” on an authorized (has permit, certificate of permission, or was constructed pre-1939) structure without having to obtain an additional permit. Routine maintenance means:

- replacement and repair of out-of-water structures (surfaces of docks, piers, wharves and bridges);
- replacement or repair of up to 25% of all approved pilings in any one year; and
- seasonal installation, reinstallation or repair of floating docks, as long as location, dimension, elevation and materials remain as approved.

“Routine maintenance” does NOT apply to dredging or to bulkhead repairs.

Potential Environmental Impacts:

The placement of structures on or over coastal waters and resources, dredging of marina basins, and filling of coastal waters and wetlands can degrade or eliminate coastal resources, which have economic, aesthetic, recreational and environmental value. CT-DEP’s Office of Long Island Sound Programs (OLISP) coastal regulatory programs are designed to balance the protection of coastal resources with the wise use of the coastal area.

Legal Requirements:

- Dredging, the erection of structures, and the placement of fill, and work incidental thereto, in the tidal, coastal, or navigable waters of the state waterward of the high tide line are regulated by the CT-DEP [CGS §22a-359(a)]. It is necessary to obtain all required authorizations from CT-DEP prior to conducting work such as dredging (including maintenance dredging), construction or placement of new docks, pilings, ramps, floats, piers, travel lift wells, seawalls, bulkheads, rip rap, stormwater outfall pipes, and/or mooring fields waterward of the high tide line in the tidal, coastal, or navigable waters of the state.
- The U.S. Army Corps of Engineers (ACOE) has jurisdiction over the above-listed activities in tidal, coastal, or navigable waters as well, pursuant to Section 10 of the Rivers and Harbors Act of 1899 [33 USC §401 et seq.], and Section 404 of the Clean Water Act [33 USC §1344 et seq.]. Call the ACOE at (800) 343-4789 for more information.
- Installation, upgrade or repair of a fixed pumpout station, if it or any part of it is waterward of the high tide line, requires registration with CT-DEP under a *General Permit for Pumpout Facilities* [CGS §22a-361(d)]. If the facility receives Clean Vessel Act funding, no registration is required.
- Floating homes, or houses on barges not capable of self-navigation, are considered non-water-dependent structures, obstructions, or encroachments and are subject to regulation by the CT-DEP [CGS §22a-359(a)]. As such, floating homes should not be allowed at any marina facility.

Best Management Practices:

- ★ Design all marina expansions to minimize adverse impacts on basin flushing, water quality, and adjacent coastal resources including shellfish beds, wetlands, and submerged aquatic vegetation.
- ★ Keep copies of all coastal permits in an easily accessible file. As management changes, pass on the information about coastal permits to the incoming marina manager.
- ★ Keep all docks, floats, and bulkheads in good working order by conducting routine maintenance (see sidebar). Certain activities such as rebuilding, reconstructing, or reestablishing to a preexisting condition and dimension any structure, fill, obstruction, or encroachment, including

maintenance dredging are considered “substantial maintenance” and may be eligible for a Certificate of Permission, an abbreviated authorization process allowed under CGS §22a-363b.

- ✪ Before doing ANY work that you think might be in the state’s permitting jurisdiction, contact OLISP at (860) 424-3034 to discuss the work that you would like to do or to schedule a pre-application meeting. Some of the maintenance work you want to do may not require any prior authorization or may be eligible for a shortened permit process.

Checklist for Clean Marina Certification:

- ✓ Do you keep your pumpout facility in good working order?

YES

NO

N/A

Compressor Blowdowns



Potential Environmental Impacts:

Air compressor blowdown water commonly contains lubricating oil or other potential pollutants. These hydrocarbons can contaminate surface and groundwater when improperly managed.

Legal Requirements:

- Compressor blowdown water may not be discharged into the ground or surface water without a permit [CGS §22a-430].
- Either discharge air compressor blowdown water to sanitary sewer, or contain it in a holding tank. You may not discharge this wastewater into a septic system. If you send less than 500 gallons of blowdown water per day to the municipal sewer, filing for a CT-DEP permit is not required, but you must follow all the BMPs listed below to ensure that the lubricating oil is removed from the water before discharge. If you send more than 500 gallons per day to the municipal sewer, contact CT-DEP's Bureau of Water Management at (860) 424-3018 for more information on the *General Permit for Miscellaneous Discharges of Sewer Compatible (MiSC) Wastewater*.
- Waste compressor oil, filters and oil/water separator waste must be managed as used oil [40 CFR 279; RCSA §22a-449(c)-119]. See [Appendix C](#) for more information.

Best Management Practices:

- ★ Evaluate the need for installing a dehumidifying system in the air compressor which would reduce the moisture content of the compressed air and therefore the volume of wastewater generated. This practice may also prolong the life of the compressor by reducing loss of lubrication and rusting.
- ★ Visually inspect the exterior of air compressor equipment for the presence of oil leaks on a regular basis.
- ★ Establish a preventative maintenance program which includes, but is not limited to, a schedule for cleaning parts, replacing oil, and replacing filters for the air compressor equipment as recommended in the manufacturer's specifications.
- ★ Remove or retain any floating layer of oil prior to discharge.
- ★ Investigate purchase of oil-free air compressor that would eliminate oil from the blowdown water.

Checklist for Clean Marina Certification:

No Clean Marina Certification criteria specific to compressor blowdowns.

Facility Cleaning

Potential Environmental Impacts:

Many common cleaning products contain hazardous chemicals that with repeated or excessive contact may lead to lung problems, brain and nerve damage, cancer and even death. Hazardous chemicals can often be found in drain cleaners, floor-care products, window sprays, and bathroom cleaners. Those labeled “DANGER” or “POISON” are typically most hazardous. Others may be labeled “CAUTION” or “WARNING” because they are skin or eye irritants. Less hazardous alternatives for common cleaning products are often labeled “non toxic.”

Legal Requirements:

- There are no legal requirements to use environmentally preferable products. Note that waste cleaning products must be disposed of in accordance with the hazardous waste disposal requirement. See Appendix B.

Best Management Practices:

- ✧ Use cleaning products which may have less of an impact on the environment because they are less toxic and contain lower concentrations of volatile organic compounds (VOCs), ozone depleting chemicals (ODCs), and/or carcinogens.
- ✧ Read product labels. Avoid cleaning products with:
 - ✗ alcohol
 - ✗ ammonia
 - ✗ bleach
 - ✗ butyl cellosolve
 - ✗ cresol
 - ✗ dye
 - ✗ ethanol
 - ✗ formaldehyde
 - ✗ glycols
 - ✗ hydrochloric acid
 - ✗ hydrofluoric acid
 - ✗ lye
 - ✗ naphthalene
 - ✗ PDCBs
 - (paradichlorobenzenes)
 - ✗ perchloroethylene
 - ✗ petroleum distillates
 - ✗ phenol
 - ✗ phosphoric acid
 - ✗ propellants
 - ✗ sulfuric acid
 - ✗ TCE (trichloroethylene)
- ✧ Depending on the cleaning job, always try cleaning with water and a coarse cloth first. Clean more often with fresh water only. If you must use a cleaner, use the product sparingly.
- ✧ Consider non-toxic alternatives for cleaning products. Even non-toxic substances can cause temporary harm to the environment and should therefore be used sparingly. Some non-toxic alternatives to typical cleaning products are:

| | |
|------------------------|---|
| ALL PURPOSE CLEANER | Mix one cup white vinegar with two gallons water. |
| AIR FRESHENER | Leave out an open box of baking soda. |
| AMMONIA-BASED CLEANERS | Vinegar, salt, and water. |
| BRASS CLEANER | Worcestershire sauce. Or paste made with equal amounts of salt, vinegar, and water. |

| | |
|--------------------------|--|
| COPPER CLEANER | Lemon juice and water. Or paste of lemon juice, salt, and flour. |
| CHLORINE BLEACH | Baking soda and water. Or borax. |
| CHROME CLEANER/POLISH | Apple cider vinegar to clean; baby oil to polish. |
| DISINFECTANTS | One half a cup borax in one gallon of water. |
| DRAIN OPENER | Dissemble and use a plumber's snake. Or flush with boiling water mixed with one quarter cup baking soda and one quarter cup vinegar. |
| FIBERGLASS STAIN REMOVER | Baking soda paste. |
| FLOOR CLEANER | One-cup vinegar plus two gallons of water. |
| STAINLESS STEEL CLEANER | Baking soda or mineral oil for polishing, vinegar to remove spots. |
| TOILET BOWL CLEANER | Use toilet brush and baking soda. |
| WOOD POLISH | Olive or almond oil (interior walls only) |
| WINDOW CLEANER | Mix two tablespoons vinegar in one quart of water or rub glass with newspaper. |

Sources: Buller (1995) and MA Department of Environmental Management, Environmental Hazards Management Institute.

Checklist for Clean Marina Certification:

- ✓ Do you reduce the use of toxic cleaners for cleaning your facility by changing practices or products?

YES NO N/A

Fish Waste

Potential Environmental Impacts:

Too much fish waste in a poorly circulated marina basin can lower oxygen levels in the water. As the waste decomposes, it can lead to foul odor and fish kills. Floating fish parts are also an unsightly addition to marina waters.

Legal Requirements:

- Local harbor management ordinances might prohibit the discharge of fish waste within the jurisdiction of the harbor management plan. Check with local harbor management commission, if applicable.
- Disposal of fish waste into an enclosed water body may be a violation of the local health code. Check with your municipal or regional director of health.

Best Management Practices:

- ✧ Prohibit disposal of fish waste in the marina basin. Post signs displaying the rules.
- ✧ Do not permit fish cleaning on docks and floats.
- ✧ Install a fish cleaning station at your marina.
- ✧ Clearly identify the fish cleaning stations with signs that list the rules and regulations for their use.
- ✧ Direct rinsewater from fish cleaning areas to a sand filter or sanitary sewer. It should be free of solids.
- ✧ Use one of the following disposal methods:
 - Compost fish waste where appropriate and use compost on landscaping. See “Landscaping” fact sheet for more information.
 - Encourage boaters to freeze fish parts and reuse them as bait or chum on the next fishing trip. Use grinder to make chum out of fish carcasses. Freeze and sell chum at marina store.
 - If composting or freezing is not an option, encourage boaters to double-bag their fish parts and throw out in their regular trash.
- ✧ Encourage boaters to clean fish offshore where the fish are caught and discard of the fish in unrestricted waters, unless there are length limits for the type of fish caught.

Checklist for Clean Marina Certification:

- ✓ Do you prohibit disposal of fish waste in the marina basin, and/or provide for proper disposal of fish waste?

YES NO N/A



Floor Drains

Potential Environmental Impacts:

Repair shop wastewater typically contains chemicals such as oils, degreasers, gasoline, diesel, detergents, heavy metals and antifreeze. In some instances it may contain solvents. If discharged through a dry well or septic system to the ground, these chemicals may render drinking water supplies unfit for human consumption. If discharged directly or indirectly to surface water these chemicals can be toxic to fish and other aquatic life.

Legal Requirements:

- Floor drains from mechanical shops must be connected either to a holding tank (1,000 gallon minimum capacity) which meets the standards of tanks installed in accordance with RCSA §22a-449(d)-1, or to the sanitary sewer with an oil and grit separating tank (1,000 gallon minimum capacity). You may not discharge this wastewater into a septic system. If you send less than 500 gallons of wastewater per day to the municipal sewer, filing for a CT-DEP permit is not required, but you must follow all the BMPs listed below to ensure that petroleum product is removed from the water before discharge. If you send more than 500 gallons per day to the municipal sewer, contact CT-DEP's Bureau of Water Management at (860) 424-3018 for more information on the *General Permit for Miscellaneous Discharges of Sewer Compatible (MiSC) Wastewater*.
- Waste oil generated from oil/water separators or wastewater from holding tanks must be tested for hazardous components and properly disposed [40 CFR 279 and RCSA §22a-449(c)-199; 40 CFR 262.11 and RCSA §22a-449(c)-102(a)(2)(A)]. See [Appendices B](#) and [C](#) for more information.

Best Management Practices:

- ★ Avoid or minimize the use of any ammoniated, petroleum or chlorinated solvent-based cleaning agents.
- ★ Sweep or vacuum floors often and immediately before floor washing.
- ★ Clean up fluid spills quickly with absorbent material. See [Appendices B](#) and [C](#) for disposal information. Cover floor drains if there is a spill. There are inexpensive covers available for this purpose.
- ★ Permanently seal floor drains with concrete if they do not connect to a sewer or holding tank.

Checklist for Clean Marina Certification:

No Clean Marina certification criteria specific to floor drains.

Landscaping

Potential Environmental Impacts:

Excess pesticides and fertilizer that you put on your lawn and plantings can eventually run off into the marina basin and harm marine and aquatic life. Landscaping techniques can be used to reduce environmental impacts on marina basins and can save money by requiring less water and maintenance, while creating an attractive location for customers.

Legal Requirements:

- Grass clippings may not be disposed of with regular trash [CGS §22a-208v(c)]. Leave the clippings to decompose on the ground or compost them.
- Before disposing of old or unused lawn additives, particularly pesticides, conduct a hazardous waste determination to establish whether or not their disposal is subject to hazardous waste regulations [40 CFR 262.11; RCSA §22a-449(c)-102(a)(2)(A)]. Manage hazardous waste as described in [Appendix B](#).

Best Management Practices:

- ✧ Use native plants for landscaping. Plants that are native to the region and climate compete well with weeds and other pests. They also require less fertilizer and pest control than non-native plants. Native plants can be purchased at your local nursery.
- ✧ Avoid planting invasive species. Invasive species multiply rapidly and take over areas very quickly. The list of invasive species in Connecticut is available at <http://www.hort.uconn.edu/cipwg> (click on “invasive lists”) or by calling CT-DEP’s Geologic and Natural History Survey at (860) 424-3585, or the UCONN Department of Plant Science at (860) 486-6448.
- ✧ Save water by watering in the early morning or late afternoon. Oscillating sprinklers can lose up to 50% of water to evaporation on hot days.
- ✧ Use composted fish waste as fertilizer for your plants. See “[Fish Waste](#)” fact sheet for more information.
- ✧ Plant a vegetated filter strip or buffer between impervious areas and the marina basin. A vegetated filter strip is a densely vegetated strip of land engineered to accept runoff from upstream development as overland sheet flow.
- ✧ Minimize fertilizer use. When it comes to fertilizer, *more is not better!* The excess nutrients from unused fertilizer will run off into the marina basin and potentially cause an algal bloom. Plus, the more you fertilize, the more frequently you have to mow. Leave grass clippings on the lawn areas since they act as a natural organic fertilizer.
- ✧ If you must use fertilizer, apply it in late April and again in September. If a third treatment is needed, apply in late May. Apply only a half pound of nitrogen per 1,000 square feet of lawn at each application. To figure this out, divide 100 by twice the percentage of nitrogen (N) in the



Using the best management practices listed below can reduce or eliminate the need for pesticides in a marina’s landscaping.

fertilizer. This will give you the application rate in pounds of fertilizer per 1,000 square feet of lawn.

Checklist for Clean Marina Certification:

- ✓ Do you use native plants in landscaping?

YESNO N/A
- ✓ Do you minimize use of fertilizers and pesticides or use compost on landscaping?

YESNO N/A
- ✓ Do you have a vegetated buffer between impervious surface (like pavement) and the marina basin, where practical, or limit paved areas?

YESNO N/A

Litter and Recycling

Potential Environmental Impacts:

Routine marina and boating activities produce a variety of non-hazardous solid wastes. These include bottles, plastic bags, aluminum cans, coffee cups, six-pack rings, disposable diapers, wrapping paper, cigarette filters, and fishing line. This type of debris harms living organisms and their habitats after it enters the water. A litter free facility is more attractive to present and potential customers. Diverting reusable materials out of the waste stream through recycling conserves natural resources, and reduces the amount of waste that must be disposed.

Legal Requirements:

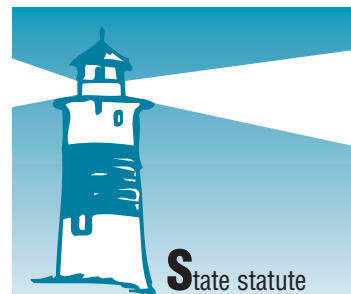
- Marina operators must provide areas to collect solid waste from their customers [33 USC 1905(a)(2), 33 CFR 151.05]. For more specific information, see [Appendix D](#).
- Marina facilities must provide for the separation from other solid waste of items designated for recycling [CGS §22a-241b(c)]. The following items are required to be recycled [RCSA §22a-241b-2]:
 - corrugated cardboard
 - glass and metal food and beverage containers
 - leaves
 - newspaper
 - white office paper
 - scrap metal
 - waste oil
 - spent lead acid storage batteries
 - nickel-cadmium rechargeable batteries [CGS §22a-256a]

For more specific information, see [Appendix D](#).

- Grass clippings may not be disposed of with regular trash [CGS §22a-208v(c)]. Leave the clippings to decompose on the ground or compost them.

Best Management Practices:

- ✪ Place covered trash receptacles in convenient locations away from the water for use by marina patrons.
- ✪ Do not put trash or recycling containers on docks, as waste can easily blow into the water.
- ✪ If practical, lock trash receptacles at night to prevent “midnight dumping” since marina operators are responsible for the content of dumpsters.
- ✪ Train employees to pick up stray trash as a daily practice.



State statute prohibits individuals from littering on public property, on private property they don't own, or in the waters of the state [CGS §22a-250(a)]. Do your part to prevent your customers from littering by providing easily accessible, clearly marked, and frequently emptied litter and recycling receptacles.

- ★ Provide clearly marked, conveniently located recycling containers for customers and staff to use, particularly for plastic, glass and metal food/beverage containers and other recyclables generated at your facility.
- ★ Purchase products made with recycled contents to close the recycling loop (i.e., create a market for the materials you recycle). Buy recycled printing and writing paper, towels, tissue, re-refined motor oil and antifreeze.
- ★ Educate employees about separation requirements and your recycling program.
- ★ Encourage boaters to exchange excess paints, thinners, and varnishes rather than dispose. Provide a bulletin board where boaters can post notices if they have or need a particular substance, or establish a paint and maintenance chemical swap area for customers.
- ★ Consider cooperating with other nearby businesses to simplify recycling and reduce costs. Your municipal recycling coordinator may be able to help you find or establish a cooperative business-recycling program.
- ★ Use reusable or recyclable boat covers for boat storage. Recycle used plastic boat covers. See “[Shrink Wrap](#)” fact sheet.
- ★ Require patrons to clean up after their pets. See “[Pet Waste](#)” fact sheet.
- ★ For information on recycling antifreeze, see “[Antifreeze](#)” fact sheet.
- ★ For information on recycling batteries, see “[Battery Replacement](#)” fact sheet.

Checklist for Clean Marina Certification:

- ✓ Do you keep trash containers, bins or dumpsters covered and in convenient locations away from the water?

YES NO N/A

- ✓ Do you provide clearly marked recycling containers for customers and staff to use, particularly for plastic, glass and metal food/beverage containers?

YES NO N/A

Pet Waste

Potential Environmental Impacts:

Pet waste can contain harmful bacteria. If left on marina grounds, it will eventually enter the marina basin and contaminate the water and shellfish beds. The nutrients in pet waste may also encourage weed or algae growth in the marina basin, which may eventually lead to lower oxygen levels in water. Pet waste is also unsightly and may be a source of customer complaints.

Legal Requirements:

- Mismanaged pet waste may be considered public nuisance by a local health director if it is allowed to accumulate on-site [CT Public Health Code, Section 19-13(B)(1)].
- Local ordinances may prohibit the leaving of pet waste on private property. Check with your municipality.

Best Management Practices:

- ✦ Provide a dog walking area that is identifiable by signs.
- ✦ Require customers to clean up after their pets. Provide bags for boaters to scoop up waste and dispose of in trash.
- ✦ Specify pet waste rules in marina slip contract.
- ✦ Encourage cat owners to maintain a litter box on their boat.

Checklist for Clean Marina Certification:

- ✓ Do you encourage customers to clean up after their pets by posting signs and/or providing bags to scoop up wastes?

YES NO N/A



stormwater control are often required as conditions for state and local permits with the goal of implementing effective runoff control strategies. Stormwater runoff management goals are to reduce the average annual loading of total suspended solids (TSS) in runoff from hull maintenance areas by 80%, based on an average of all storms in magnitude less than or equal to a 2 year - 24 hour storm.

Stormwater Runoff Management Practices

Potential Environmental Impacts:

Stormwater runoff from parking lots and other developed surfaces represents a significant mode of pollutant transport from land-based activities to receiving waterbodies. The runoff from parking areas, buildings, repair yards, and access roads can carry nutrients, metals, suspended solids, hydrocarbons and other potential pollutants into marina basins. The highest concentration of these surface pollutants occurs in the runoff associated with the first half to one inch of rainfall depending on storm intensity. Stormwater that is treated in some way to remove pollutants before it reaches the marina basin minimizes impact to aquatic and marine life.

Legal Requirements:

- If there is a stormwater discharge from your facility, you may have to register for a *General Permit for the Discharge of Stormwater Associated with Industrial Activity* (“Stormwater General Permit”). See [Appendix F](#) for more information.

Non-structural Best Management Practices, “Good Housekeeping” Practices:

- ✧ Perform as much boat repair and maintenance as practicable inside work buildings.
- ✧ Where an inside workspace is not available, perform abrasive blasting and sanding within spray booths or tarp enclosures.
- ✧ Where buildings or enclosed areas are not available, provide clearly designated land areas as far from the water’s edge as possible for debris-producing maintenance. Collect as much maintenance debris on tarps, filter fabric, or paved surface.
- ✧ Use vacuum sanders to collect dust and chips while removing paint from hulls.
- ✧ Establish a list of “yard rules” which do-it-yourselfers and contractors must follow when performing debris-producing boat maintenance.
- ✧ Clean hull maintenance areas immediately after any maintenance is done to remove debris, and dispose of collected material properly.
- ✧ Capture pollutants out of runoff water with permeable tarps, screens, and filter cloths.
- ✧ Sweep or vacuum around hull maintenance areas, parking lots, and driveways frequently, where appropriate.
- ✧ Store all potential pollutants such as pesticides, used oil containers, detergents, etc. under cover.

Structural Best Management Practices:

- ★ Plant a vegetated filter strip or buffer between impervious areas and the marina basin. A vegetated filter strip is a densely vegetated strip of land engineered to accept runoff from upstream development as overland sheet flow.
- ★ Construct new or restore former wetlands where feasible and practical. Constructed stormwater wetlands are manmade shallow pools that create growing conditions suitable for wetland vegetation.
- ★ Minimize impervious areas on marina site by paving only where absolutely necessary. Use porous pavement for parking lots and lightly traveled access roads, or other pervious materials such as gravel or crushed concrete.
- ★ Direct roof runoff to drywells or position downspouts so that they drain to vegetated areas. Avoid draining to concrete or asphalt.
- ★ Install oil/grit separators to capture pollutants in runoff. Water from parking lots and other areas likely to have hydrocarbons should be directed through oil/grit separators before entering any other management structure (Note: this practice requires a lot of maintenance).
- ★ Install sand filters. Intermittent sand filter facilities are underground vault-like facilities which capture, pre-treat, and filter the first flush of stormwater runoff. In some cases these facilities can include an above-ground storage facility to store the excess volume of runoff from larger storms.
- ★ Use catch basins with deep sumps where stormwater flows to the marina basin in large pulses.
- ★ Maintain catch basins regularly. Typical maintenance of catch basins includes trash removal if a screen or other debris-capturing device is used, and removal of sediment by a hired contractor or on-site wet-vacuum system. At a minimum, catch basins should be cleaned at the beginning and end of each boating season.
- ★ Add filters to storm drains that are located near work areas to screen solid materials out of runoff.
- ★ Place absorbent materials in drain inlets to capture oil and grease.

Checklist for Clean Marina Certification:

- | | | | |
|--|-----|----|-----|
| ✓ Do you follow “good housekeeping” techniques to keep potential pollutants from entering stormwater runoff? | YES | NO | N/A |
| ✓ Do you maintain catch basins, as necessary? | YES | NO | N/A |



Pool cleaning contractors must register with the CT-DEP. Before you hire one, ask to see a copy of their registration.

Swimming Pool Wastewater

Potential Environmental Impacts:

Chlorine and other chemicals (bromine) used in maintaining pools and spas often include acidic or alkaline cleaning compounds that can have a negative impact on marine and aquatic life if mismanaged. Even at extremely low levels, chlorine can be toxic to life in lakes, ponds, and coastal basins. Swimming pool wastewater can also contain solids and harmful bacteria.

Legal Requirements:

- Marinas which initiate, create, originate or maintain a discharge of swimming pool wastewater must register with CT-DEP for a *General Permit for the Discharge of Swimming Pool Wastewater* [CGS §22a-430b]. This General Permit covers the discharge of:
 - **Backwash Wastewater:** wastewater generated by backwashing a swimming pool filtration system
 - **Draining Water:** wastewater generated by draining a swimming pool
 - **Pressure Wash Wastewater:** wastewater generated by pressure washing a swimming pool
 - **Acid Cleaning Wastewater:** wastewater generated by the acid cleaning of a swimming pool
- The requirements for treatment of swimming pool wastewater before discharge depend on the type of wastewater (see above) and where it is intended to be discharged (municipal sanitary sewer, surface water, ground surface water, or dedicated pool water subsurface disposal system). Contact the CT-DEP's Bureau of Water Management at (860) 424-3018 for more information and a copy of the general permit which lists all the legal requirements for discharge.

Checklist for Clean Marina Certification:

No Clean Marina certification criteria specific to swimming pool wastewater.

TAB 6: EMERGENCY PLANNING



Chris Stone

Emergency Spill Kit

Emergency Planning

QUICK REFERENCE TABLE

Use this table as a quick reference to determine what is legally required if you conduct any of the listed activities or use any of the listed products.

We suggest that you read each fact sheet before turning to the referenced legal requirement section because each individual fact sheet provides more detailed information about each activity or product used.

If the “Additional Requirements” box is checked, there are additional requirements that are not described in any appendix, but are described on the referenced fact sheet.

| ACTIVITIES | | | | | | | |
|--------------------|-------------------|---|---|------------------------------------|---------------------------------------|---|--------------------|
| | Fact Sheet Page # | Appendix A: Hazardous Substance Management | Appendix B: Hazardous Waste Management | Appendix C: Used Oil Management | Appendix D: Solid Waste Management | Appendix F: Stormwater General Permit* | Add'l Requirements |
| Emergency Planning | 73 | P | P | | | | ✓ |

✓ = applies P = potentially applies, see fact sheet for more information

*NOTE: All facilities classified under Standard Industrial Code (SIC) 4493 (Marina) or SIC 373 (Ship and Boat Building and Repairing), with portions of the facility involved in vehicle, boat, or equipment maintenance, fueling, and/or vehicle and boat or equipment cleaning operations, that discharge stormwater must register for a *General Permit for the Discharge of Stormwater Associated with Industrial Activity* (“Stormwater General Permit”). See Appendix F for more information.



Having a licensed spill cleanup contractor on retainer avoids the added expense of CT-DEP hiring one for you. Having an emergency response plan assures you more control during emergency response.

NOTE: This requirement applies only to stationary engines with the potential to emit more than 15 tons per year of any individual air pollutant [RCSA 22a-174-3a(1)(D)], and does not apply to portable engines that are relocated at least once every 12 months [40 CFR 89.2]. If you have questions about these requirements, contact the CT-DEP's Bureau of Air Management at 860-424-3027.

Emergency Planning

Potential Environmental Impacts:

Being adequately prepared for emergency action can potentially reduce the overall environmental impact of a spill, fire or other event.

Legal Requirements:

- If your facility stores gas or oil 1) above-ground in any size tank(s) with a total aggregate volume over 1,320 gallons (containers of less than 55 gallons and/or permanently closed storage tanks are exempt from the total); or 2) in underground storage tanks with total capacity greater than 42,000 gallons (unless the tanks are compliant with the state requirement for USTs), you need to prepare a Spill, Prevention, Control, and Countermeasure (SPCC) Plan, which outlines a facility-wide plan to prevent and clean up oil and gasoline spills [Clean Water Act, 40 CFR 112]. See [Appendix E](#) for more information.
- If your facility is a Large Quantity Generator of hazardous waste, you must prepare a hazardous waste contingency plan [40 CFR 262.34(a)(4); RCSA 22a-449(c)-102(a)]. See [Appendix B](#) for more information.
- If you have a marine service station, you must design and manage it to prevent spills, fire and other dangers as required in the National Fire Protection Association's (NFPA) *Automotive and Marine Service Station Code* (NFPA 30A). These requirements are adopted locally. Check with your municipal fire marshal for local requirements, or contact the State Fire Marshall's Office at (860) 685-8350.
- If you store hazardous materials in quantities above certain threshold amounts, you must report storage of that substance under the Emergency Planning and Community Right-to-Know Act of 1986 [42 USC 11001, and 42 CFR 355]. See [Appendix A](#) for more information.
- Keep copies of Material Safety Data Sheets (MSDS) for all hazardous substances used at your facility [Occupational Safety and Health Act of 1970, 29 USC Section 657].
- If you use stationary emergency engines to power emergency generators, water pumps, etc., no air emission permit is required from CT-DEP as long as you maintain records for the past 5 years demonstrating that you have purchased no more than the following for your facility in any calendar year:
 - 41 million cubic feet of gaseous fuel (natural gas), or
 - 21,000 gallons of distillate fuel (diesel/#2 oil), or
 - 100,000 gallons of propane [RCSA §22a-174-3c]. [See "NOTE" in margin]
- In case of a spill of oil, petroleum, chemical liquids or solids, liquid, gaseous products or hazardous waste, report the spill to CT-DEP's Oil and Chemical Spill Response Division at (860) 424-3338 [CGS §22a-450]. See [Appendix E](#) for state and federal spill reporting requirements.

- If any fuel that is spilled into navigable waters causes a visible sheen, it may be necessary to report that spill to the National Response Center at (800) 424-8802 [Section 311 of the Clean Water Act; 33 USC 1321]. See [Appendix E](#) for the state and federal spill reporting requirements.

Best Management Practices:

- ★ Assess potential hazards at your facility, both manmade (fuel spill or fire) and natural (nor'easter or hurricane).
- ★ Develop an oil spill contingency plan, even if you are not required by law to prepare an SPCC Plan. Such plans should identify potential spill sources, oil and hazardous materials used or stored in the area, spill prevention measures (e.g., security, inspection, containment, training, equipment), and spill emergency procedures, including contact information of marina personnel qualified to lead spill response efforts, notification, and spill containment measures.
- ★ Store spill containment and control materials in a clearly marked location, readily accessible to work and storage areas. These spill response kits should include absorbent pads and booms, empty sandbags, sewer pipe plugs, drain covers, fire extinguishers, and a copy of the facility's spill contingency plan.
- ★ Develop emergency response plans that include written procedures for action addressing potential emergency situations. Keep the plan in an accessible location. A spill contingency plan and emergency response plan can be combined into one document. Emergency response plans should:
 - Include a site plan of the facility, showing valves, pipes, tanks, structures, roads, hydrants, docks, power and fuel shutoffs, hazardous material storage locations, telephones, and location of emergency response materials.
 - Describe the type, amount, and location of hazardous and potentially hazardous materials stored on-site.
 - Identify which staff member will take what action in the event of an emergency.
 - Designate one person as the spokesperson for the marina.
 - Include a list of emergency phone numbers for:
 - USCG National Response Center (800) 424-8802 (for spills)
 - CT-DEP's Oil and Chemical Spill Response (860) 424-3338
 - Local fire and police
 - Facility owner
 - Local harbormaster
 - Neighboring marinas that have emergency response equipment
 - Spill response contractors
 - List and describe actions to be taken during an emergency and, based on likely threats, what equipment should be deployed.
 - Indicate when additional resources should be called for assistance.

- ✧ Update the emergency response plan as necessary each year.
- ✧ Review the emergency response plan with employees, and train them on proper use of containment material.
- ✧ Contact local emergency response providers or local U.S. Coast Guard Marine Safety Office (New Haven: (800) 774-8724, or New London: (860) 442-4471) to obtain basic information about how to handle emergencies and/or for training opportunities.
- ✧ Inform local fire department and harbormaster of your emergency response plan.
- ✧ Develop an action checklist for severe weather. Preparations to reduce environmental risks include securing all dumpsters, removing or securing all objects which could potentially blow or wash away, and securing waterside sewage pumpouts and/or dump stations.

Checklist for Clean Marina Certification:

| | | | |
|--|-----|----|-----|
| ✓ Do you have a spill contingency plan, if you are not required to have a Spill Prevention, Control and Countermeasure (SPCC) Plan? | YES | NO | N/A |
| ✓ Do you have an emergency response plan for the potential accidents or emergencies?[this may be part of the spill contingency plan] | YES | NO | N/A |
| ✓ Do you train employees on emergency response every year? | YES | NO | N/A |
| ✓ Do you keep emergency response equipment accessible and near potential sources of accidents? | YES | NO | N/A |

TAB 7: BOATER EDUCATION



Elke Sutt

Cedar Island Marina, Clinton

Boater Education & Signage

Potential Environmental Impacts:

The environmental choices that marina customers make can improve the water quality in your marina basin, and the appearance of your facility.

Legal Requirements:

- There are no legal requirements to educate customers about clean boating practices.

Best Management Practices:

- ✧ Photocopy and distribute Clean Boater Fact Sheets to your customers. The Clean Boater Fact Sheets can be found following this page.
- ✧ Contact CT-DEP's Boating Division at (860) 434-8638 for additional boater education materials to distribute to marina customers. Ask about the Clean Boater Program.
- ✧ Provide clear signage at your marina. Sample signs are shown on the next pages.
- ✧ Train employees about clean boating practices. Let them know what information is available to distribute to customers.
- ✧ Host an environmental workshop for customers.
- ✧ Include environmental information in facility newsletters.
- ✧ Include environmental boating practices in slip contracts.
- ✧ Provide a list of "yard rules" to your customers who do their own boat maintenance.

Checklist for Clean Marina Certification:

- ✓ Do you pass on information about environmentally responsible boating practices to your customers?

YES NO N/A

Sample Signs:

NOTICE

The Federal Water Pollution Control Act prohibits the discharge of oil or oily waste into or upon the navigable waters of the United States or the waters of the contiguous zone if such discharge causes a film or sheen upon, or discoloration of, the surface water. Violators are subject to a penalty of \$5,000.

The use of soaps to disperse oil is illegal. Violators may be fined up to \$25,000 per incident.

Report Oil Spills to
USCG at (800) 424-8802

OIL SPILL RESPONSE KIT

*[Name & Number of person
to contact in marina in
case of a spill]*

*[Include name and number
of person to contact at the
marina in case of a spill.]*

Pumpout Station

- *[Instructions for use]*
- *[Hours of operation]*
- *[Fee]*
- *[Name and number of person to call in case of malfunction.]*

Do Not Discharge Sewage

Please use our clean, comfortable restrooms while you are in port.

Nutrients and pathogens in sewage impair water quality.

Vessel Maintenance Area

- Perform all major repairs in this area.
- Do all blasting and spray painting within an enclosed booth or under tarps.
- Use tarps or filter fabric to collect paint chips and other debris.
- Use vacuum sander *[include rental information if appropriate]*.
- Use high-volume low-pressure spray guns *[include rental information if appropriate]*.
- Use drip pans with all liquids.
- Reuse solvents.
- Store waste solvents, rags, and paints in covered containers.

Sample Signs:

Recycle Antifreeze

THIS CONTAINER IS FOR:

- Ethylene glycol antifreeze
- Propylene glycol antifreeze

Tailor to fit your hauler's requirements.

Gasoline, diesel, kerosene, and all other materials are **STRICTLY PROHIBITED**

If container is kept locked, include information about where to find the key or leave the antifreeze.

Keep Fuel Out of the Water

Do Not Top Off Tank

Listen to Anticipate When Tank is Full

Wipe-up Spills Immediately

Recycle Oil

THIS CONTAINER IS FOR:

- Engine oil
- Transmission fluid
- Hydraulic fluid
- Gear oil
- #2 Diesel
- Kerosene

Gasoline is **STRICTLY PROHIBITED**

[Tailor to fit your hauler's requirements.]

[If container is kept locked, include information about where to find the key or leave the oil.]

RECYCLE

| | |
|-----------------------------|-------------|
| Oil | Mixed Paper |
| Antifreeze | Newspaper |
| Lead batteries | Solvents |
| Glass | Steel |
| Plastic | Scrap Metal |
| Aluminum | Tin |
| Corrugated cardboard | Tires |
| Metal fuel filter canisters | |

[Indicate which items you recycle and where the collection sites are located.]

[Include information about local recycling services for materials that you do not collect.]

Think Before You Throw Away

The following items may not be placed in this dumpster:

- Oil
- Antifreeze
- Paint or varnish
- Solvents
- Pesticides
- Lead batteries
- Transmission fluid
- Distress flares
- Hazardous wastes

Ask marina staff about proper disposal of these items.

Sample Signs:

No Fish Scraps

Please do not discard fish scraps within the marina basin.

- Use our fish cleaning station.
- Bag the scraps and dispose in dumpster or at home.
- Freeze and reuse as chum or bait.
- Save and dispose over deep water.

Keep it Clean!

This marina provides food and shelter for young fish

- Prevent oil spills!
- Keep bilge clean!
- Use oil sorb pads!
- Help by recycling or properly disposing of used oil, antifreeze, solvents, cleaners, plastics, and other wastes.

**Thank you for
Keeping the
[Sound/Lake/River]
clean and safe!**

Environmental Policy

It is the policy of this marina to protect the health of our patrons, staff and the environment by minimizing the discharge of pollutants to the water and air.



CLEAN BOATER FACT SHEET

Bilge Water, Boat Sewage and Gray Water

All boats generate wastewater. Sources include bilge water, marine toilets, and laundry/dishwashing facilities. Please follow the tips listed below to make sure that you dispose of this wastewater properly.

Bilge Water

Oil and gasoline can collect in your bilge and mix with bilge water. Discharging your bilge to the water exposes marine and aquatic organisms to these toxic substances.

1. Avoid pumping any bilge water that is oily or has a sheen.
2. Keep your engine well tuned to prevent leaks, and keep it clean to spot oil and gas leaks more easily.
3. Regularly check fuel lines and hoses for leaks to prevent oil from entering the bilge.
4. Place an oil absorbent pad in your bilge. Change the pad regularly. If the pad is saturated with gas, allow it to air dry and reuse. If the pad is saturated with diesel or oil, double-bag and discard in the trash.
5. Consider installing a bilge oil filter or oil/water separator in your bilge discharge line to allow you to directly discharge bilge water while protecting the environment. Check with your marina staff to see if the marina offers services to install such systems or if they can refer you to an installer.
6. Ask your marina if they provide bilge water removal services. If they do not, maybe they know where such a service is provided nearby.

Boat Sewage

Boat sewage contains disease-causing bacteria that can make people sick either through direct contact in the water, or through consumption of affected shellfish. Sewage also disrupts the chemical balance of the natural environment, degrading fish and shellfish habitat.

1. Use pumpouts! For a list of pumpouts in Connecticut, call the nearest marina or harbormaster, or contact the CT-DEP's Boating Division at (860) 434-8638, <http://www.dep.state.ct.us/olisp/cva/pumpmap.htm>
2. Always use shore side restrooms when docked.
3. Remember that it is illegal to discharge untreated sewage (empty your holding tank) anywhere in Long Island Sound or into any of Connecticut's inland waters. Boaters may discharge untreated waste 3 miles beyond a line drawn between Montauk Point, New York and Watch Hill, Rhode Island. Unless the waterbody is designated as a "no discharge area," boaters can discharge treated sewage within that 3-mile limit.

4. Maintain your Marine Sanitation Device (MSD). Keep the disinfectant tank full, use biodegradable treatment chemicals, and follow the manufacturer's suggested maintenance program.
5. Never discharge your holding tank soon after adding deodorants since some deodorants contain toxic formaldehyde that can kill fish.
6. Have your MSD inspected regularly to ensure that it is functioning properly.
7. Do not dispose of fats, solvents, oils, emulsifiers, disinfectants, paints, poisons, phosphates, diapers, or other similar products in your MSD.
8. Avoid discharging treated sewage in congested or poorly-flushed areas.

Gray Water

Gray water includes soaps and detergents from boat showers, dishwashing, and laundry facilities. These soaps, even those labeled as "biodegradable," contain substances that might be harmful to marine life.

1. Use shoreside showers, dishwashing stations, and laundry facilities whenever they are available.
2. Check product labels and use low nitrogen and phosphorous detergents for on-board laundry, dish washing and general cleaning.
3. Use all soaps and cleaners sparingly.



CLEAN BOATER FACT SHEET

Boat Maintenance

Do you routinely work on your boat rather than hire others to do the work for you? Do you clean the deck, repaint the hull, and change the oil? If so, here are some important tips to help you protect the waters wherever you boat.

Boat Cleaning

Soaps and solvents are toxic to marine life. Take care when using harmful products near the water.

1. Minimize the need for soaps and solvents by washing your boat frequently with a coarse cloth and some water.
2. If washing with water does not work, try natural cleaners, such as lime juice, borax, and baking soda. See the list of non-toxic cleaning alternatives.
3. When you need to use detergents, always use biodegradable, non-toxic, phosphate-free soaps, and keep the caps on bottles when cleaning to avoid spills. Biodegradable soaps are comprised of natural compounds that breakdown more rapidly in the environment. Even these soaps can negatively affect marine life so always use as little as possible.
4. Try cleaning teak with a mild soap and abrasive pad, nylon brush, or bronze wool.
5. Do not use cleaning solvents on your boat when it is in the water.

Hull Maintenance

Boat paints contain harmful components including metals, solvents, and dyes. Precautions must be taken to prevent paint and paint chips from ending up in the water.

1. Check with marina staff to find out where hull maintenance is allowed at the marina.
2. Do not work on your hull near the water or on the mudflats at low tide.
3. Never clean your boat bottom when it is in the water because toxic paint may be removed.
4. Use a dust-free sander if possible. It will reduce cleanup time and is more enjoyable to use because you won't be breathing in paint dust. Ask your marine professional if they are provided through the marina.
5. If you are not using a dust-free sander, use tarps and filter cloth to help collect your scraps.
6. Keep your work area clean.
7. Let emptied paint cans and brushes dry before disposing them.
8. Share your leftover paint with a friend or marina staff rather than throwing it away. Dispose of old paint at a household hazardous waste facility in your municipality, or check with your marine professional.

9. Ask if your facility has a collection area for boat maintenance waste from boaters. If not, take home and dispose of as household hazardous waste.
10. Use water-based paints and solvents. You can find them at most stores that sell marine paints.

Engine Maintenance

Routine engine servicing requires the handling of toxic substances such as oil and solvents. Care must be taken while the cleaning is done.

1. Check with marina staff to find out where engine maintenance is allowed at the marina.
2. Clean up work area with absorbent materials and a broom, instead of hosing.
3. Ask if your facility has a collection area for boat maintenance waste from boaters (used oil filters, waste oil, lead-acid batteries, etc.). If not, take home and dispose of as household hazardous waste.
4. Pre-clean engine parts with a wire brush to eliminate the need for solvents.
5. Keep your engine well tuned to prevent leaks, and keep it clean to spot oil and gas leaks more easily.
6. If you must use solvents, use VOC-free solvents.
7. Use the orange-pink colored propylene antifreeze, which is nontoxic, rather than the blue-green colored ethylene glycol, which is toxic to marine life.
8. Keep fuel tanks at 90% capacity during winter storage to prevent deterioration of the stored fuel. You should never fill the tank all the way because gasoline expands as it warms, causing a potentially explosive condition.
9. Never pour oil or oily liquids into the water – it is illegal.

Non-Toxic Cleaning Alternatives

The following list provides non-toxic alternatives to typical cleaning products. It should be noted that even non-toxic substances can cause temporary harm to the environment and should therefore be used sparingly.

When cleaning, always try water and a little elbow grease first.

| | |
|--------------------------|--|
| ALL PURPOSE CLEANER | Mix one cup white vinegar with two gallons water. |
| AIR FRESHENER | Leave out an open box of baking soda. |
| AMMONIA-BASED CLEANERS | Vinegar, salt, and water. |
| BRASS CLEANER | Worcestershire sauce. Or paste made with equal amounts of salt, vinegar, and water. |
| COPPER CLEANER | Lemon juice and water. Or paste of lemon juice, salt, and flour. |
| CHLORINE BLEACH | Baking soda and water. Or borax. |
| CHROME CLEANER/POLISH | Apple cider vinegar to clean; baby oil to polish. |
| DISINFECTANTS | One half a cup borax in one gallon of water. |
| DRAIN OPENER | Dissemble and use a plumber's snake. Or flush with boiling water mixed with one quarter cup baking soda and one quarter cup vinegar. |
| FIBERGLASS STAIN REMOVER | Baking soda paste. |
| FLOOR CLEANER | One-cup vinegar plus two gallons of water. |
| PAINTS | Use latex or water-based paints. |
| PAINT REMOVER / STRIPPER | Use heat gun to peel off paint. |
| PAINT THINNERS | Use water (effective for water-based paints). |
| STAINLESS STEEL CLEANER | Baking soda or mineral oil for polishing, vinegar to remove spots. |
| TOILET BOWL CLEANER | Use toilet brush and baking soda. |
| WOOD POLISH | Olive or almond oil (interior walls only) |
| WINDOW CLEANER | Mix two tablespoons vinegar in one quart of water or rub glass with newspaper. |

Sources: Buller (1995) and MA Department of Environmental Management, Environmental Hazards Management Institute.

Boat Operation & Fueling

The way that you operate your boat or personal watercraft can have a direct effect on public safety and the environment. When not operated properly, boats can result in injuries to people and animals, and can cause pollution. Specific considerations should be given when fueling your boat. Consider the following tips to make sure your boating activities are safe and protect the environment.

Boat Operation

1. Observe all rules and regulations including “no wake” zones.
2. Avoid operating through shallow areas (<3 feet). You risk causing damage to your boat and you may be harming sensitive habitats, such as eelgrass. If you are not familiar with the waters near the shore, proceed cautiously and refer to the most current local charts.
3. Watch your wake when boating near marshes and eroded banks. Your wake could cause erosion of marsh or shoreline.
4. Unless traveling to and from a port of entry or through a navigational channel, don't regularly operate your personal watercraft within 200 feet of shore.
5. Take a free boating safety course. Call CT-DEP's Boating Division at (860) 434-8638.
6. When your outboard motor needs replacing, consider a highly efficient 4-stroke or direct fuel injection 2-stroke engine. These higher efficiency engines will save you money on fuel and reduce the amount of unspent fuel that is released into the environment.

Fueling

1. Attend to fuel hose when fueling.
2. Always use an oil absorbent cloth or pad when fueling to catch small drips, particularly when you remove the fuel nozzle from the boat's fuel line.
3. Prevent spills by not topping off fuel tank, and listening to the filler pipe to anticipate when the tank is full.
4. To prevent spills from the tank vent of a built-in fuel tank, install a fuel/air separator or an air whistle in your tank line, or use a vent cup to capture overspill. Ask marina staff if they know who can provide this service.
5. Avoid overfilling tanks; remember that fuel expands as it warms up in the tank after being pumped from cooler storage tanks.
6. Fill portable tanks on shore.
7. Add a stabilizer to your fuel if you use your boat infrequently. This will help preserve the fuel and make sure it burns efficiently.
8. If you see a leak or spill of any fuel, stop the spill at the source and contact the marina staff immediately.
9. You must report a spill of any size to the CT-DEP's Oil and Chemical Spill Response Division at (860) 424-3338. If the spill causes a “sheen” on the water, it must also be reported to the National Response Center at (800) 424-8802.
10. Understand that squirting any detergent or emulsifier on an oil slick is not good for the environment, against the law, and can bring heavy fines.



CLEAN BOATER FACT SHEET



CLEAN BOATER FACT SHEET

Garbage and Fishing Waste

Everyone generates trash and garbage. When not handled properly, trash, fish waste, fishing line, hazardous waste, and pet waste can injure marine life and people, and can ruin your boating experience. Consider the following tips.

Garbage

1. Don't toss trash, including cigarette butts overboard. Never discard plastics into the water.
2. Always store your trash on-board your boat and dispose of it when you return to land. Store it securely so it does not fly away while boating.
3. Use the appropriately marked trash receptacles. If a trash can is full, find another that has room for your trash.
4. Separate recyclable materials, like cans and bottles, from regular trash for recycling at the marina or at a local redemption center.
5. If you are not sure how to dispose of a certain waste, ask your marine professional.
6. Never leave used oil or fuel filters unattended near a dumpster after hours. Store it in a safe and secure place (on-board your boat for example) and contact the marina office during normal business hours.
7. Be a good neighbor and pick up trash that you come across, either floating in the water or on land.
8. Always pick up after your pet and dispose of pet waste in the marina's trash receptacles.

Fish Waste

1. Fish waste should be discarded offshore unless there are length limits for the type of fish caught. If fish are cleaned at the marina, they should be cleaned at a designated location and the waste should be disposed of as directed by the marina staff.
2. Take particular care to properly dispose of nylon fishing line. In the water, it can entangle fish, wildlife, swimmers, and boat propellers. Recycle fishing line at your tackle shop.

APPENDIX A: HAZARDOUS SUBSTANCE MANAGEMENT



Kim Czapl

Noank Shipyard, Noank

Emergency Planning and Community Right-to-Know Act of 1986 (EPCRA) or Superfund Amendments and Reauthorization Act of 1986 (SARA Title III)

EPCRA [40 CFR 355] is a federal law, enforced by the federal Environmental Protection Agency, managed by the state emergency response commission (SERC) and local emergency planning committees (LEPC). EPCRA applies to storage and handling of hazardous materials (chemicals). EPCRA requires that facilities report storage of certain chemicals above a certain amount to the state and local authorities. This law is called both “EPCRA” and “SARA Title III”. In this fact sheet, it will be referred to as “EPCRA.”

The principal reason for EPCRA is to provide planners, responders and citizens with information on the manufacture, use, and environmental release of potentially toxic chemicals in their communities.

EPCRA has four major sections that require reporting to state and local authorities:

- Hazardous chemical storage reporting, or the “community right-to-know” requirements ([Sections 311-312](#))
- Emergency planning ([Section 301-303](#))
- Emergency release notification ([Section 304](#))
- Toxic chemical release inventory ([Section 313](#))

This fact sheet provides a summary of EPCRA, and is designed to guide you to determine whether you might be required to comply. If EPCRA applies, or might apply, to your facility, you should request the “Connecticut Right-to-Know Compliance Guide, 2001” (“CT Compliance Guide”) which lists the extremely hazardous substances and their reportable quantities, and includes the necessary reporting forms. The compliance guide is available by contacting the Connecticut State Emergency Response Commission (CT-SERC), 79 Elm Street, Hartford, CT 06106, and (860) 424-3373.

Reporting Hazardous Chemicals (EPCRA Section 311-312, or “Community Right-To-Know Requirements”)

EPCRA Section 311—List of Chemicals Form

The Occupational Safety and Health Administration (OSHA) requires employers to keep copies of Material Safety Data Sheets (MSDS) for each hazardous chemical available for employees. Distributors are required to provide MSDSs for hazardous substances [29 CFR 1910.1200].

You must complete a “Section 311—List of Chemicals Form” if you have chemicals on site that are required under OSHA to have MSDSs, and you meet

one of the following two conditions:

1. you store one or more substance listed as an “extremely hazardous substance” in quantities equal to or greater than the listed “threshold planning quantity” or 500 lbs., whichever is less [The list of extremely hazardous substances and their threshold planning quantities is available in the CT Compliance Guide or 40 CFR 355.30e(2)(1)],

OR

2. you store 10,000 pounds or more of any hazardous substance requiring a MSDS.

Although the law states that you may submit copies of the MSDS *or* a list of chemicals, Connecticut prefers the list of chemicals as provided in the form “Section 311-List of Chemicals”. You must send the completed form to the CT-SERC, 79 Elm Street, Hartford, CT 06106-5127, *AND* the LEPC (contact CT-SERC or local fire department for LEPC contact), *AND* your local fire department. You must file the “Section 311—List of Chemicals Form” within 3 months of first having reportable quantities of hazardous chemicals at your facility, and it must be updated when new hazardous chemicals are stored in reportable quantities at your facility.

EPCRA Section 312 – Annual Tier II Reporting

If you are subject to the Section 311 reporting requirements described above, you must also submit an annual “Tier II Emergency and Hazardous Chemical Inventory” form. The “Tier II Emergency and Hazardous Chemical Inventory” form, which is available in the CT Compliance Guide, requires you to inventory your facility’s hazardous chemicals and identify their storage locations.

You must submit a completed Tier II report to the CT-SERC, *AND* the LEPC, *AND* your local fire department each year by March 1.

What are marinas likely to report under the Section 311 and Tier II reporting requirements?

You must report storage of gasoline, diesel fuel, propane or fuel oil (all of which require MSDSs) in excess of 10,000 pounds. This does not include the fuel in boats dockside. Gasoline weighs roughly 6.19 pounds per gallon, diesel weighs roughly 7.05 pounds per gallon, and propane weighs roughly 4.23 pounds per gallon at 60 degrees Fahrenheit.

You must also report the sulfuric acid in lead acid batteries in excess of 500 pounds. The average small boat battery contains approximately 5 pounds of sulfuric acid. You must also report the lead in lead acid batteries in excess of 10,000 pounds. The average small boat battery contains approximately 30 to 40 pounds of lead per battery. *Note that this reporting requirements applies to the batteries that you store before or after use on your facility, but not the ones that boaters can physically move on and off their boats.*

Reporting Storage of Extremely Hazardous Substances Storage (EPCRA Section 302)

Section 302—Emergency Planning Notification Form

If you store any of 356 listed “extremely hazardous substances” in excess of the listed Threshold Planning Quantity, you are required to complete a “Section 302-Emergency Planning Notification Form” and submit it to the CT-SERC, AND the LEPC within 60 days of when the substance becomes present at the facility. The list is available in the CT Compliance Guide and in 40 CFR 355.30e(2)(1).

If you are required to file a “Section 302-Emergency Planning Notification Form,” you must also designate a facility emergency coordinator who will be the emergency contact person for your facility.

What are marinas likely to report under the Section 302 reporting requirements?

You must also report the sulfuric acid in lead acid batteries in excess of 1,000 pounds. The average small boat battery contains approximately 5 pounds of sulfuric acid. *Unlike the Section 311 and 312 requirements, this requirement DOES apply to the batteries on your customers’ boats.*

In the unlikely event that you store chlorine in liquid or granular form (not tablets or powder), you must report storage of 100 pounds or more.

Accidental Release Notification (EPCRA Section 304)

NOTE: Any spill of a chemical substance into Connecticut’s waters must be reported to the CT-DEP. In Connecticut, an accidental release, or spill, of *any* chemical substance is reportable under CGS §22a-450 to the CT-DEP’s Oil and Chemical Spill Unit at (860) 424-3338 or (860) 424-3333.

Although any size spill must be reported to the state, you only need to report a chemical spill to the federal government under certain circumstances. If the spilled substance is a listed “extremely hazardous substance” or a Comprehensive Environmental Response, Compensation, and Liability Act of 1980 (CERCLA) listed hazardous substance released in amounts greater than the listed Reportable Quantity, then you must notify the CT-SERC by calling (860) 424-3338 or (860) 424-3333, AND your LEPC, AND the National Response Center at (800) 424-8802.

Under EPCRA, you are *not* required to report a chemical spill to the federal government above the Reportable Quantity if the release:

- does not affect persons off-property;
- is federally permitted;

- is a continuous release, except when statistically significant;
- is of certain nuclear material;
- results from pesticide or fertilizer applications; and
- is petroleum, unless “extremely hazardous substance” present. (Note: this does not exempt you from reporting an oil spill to state and federal authorities as described in Appendix E.)

Initial notification can be made by telephone, radio, or in person. Emergency notification requirements involving transportation incidents can be met by dialing 911, or in the absence of a 911 emergency number, calling the operator. This emergency notification needs to include:

- The chemical name;
- An indication of whether the substance is extremely hazardous;
- An estimate of the quantity released into the environment;
- The time and duration of the release;
- Whether the release occurred into air, water, and/or land;
- Any known or anticipated acute or chronic health risks associated with the emergency, and where necessary, advice regarding medical attention for exposed individuals;
- Proper precautions, such as evacuation or sheltering in place; and
- Name and telephone number of contact person.

The facility owner or operator is also required to provide a written follow-up emergency notice as soon as practicable after the release. The follow-up notice or notices must:

- Update information included in the initial notice, and
- Provide information on actual response actions taken and advice regarding medical attention necessary for exposed individuals.

NOTE: If you are unsure about whether to report a chemical spill to the National Response Center, it is better to report than not. Not reporting can result in a costly error.

Toxic Release Inventory (EPCRA Section 313)

Toxic Chemical Release Inventory Form

While it is unlikely that any marina in Connecticut will be subject to these reporting requirements, EPCRA Section 313 (commonly referred to as the Toxics Release Inventory or TRI) requires certain facilities to complete a Toxic Chemical Release Inventory Form annually for specified chemicals.

You are required to submit a “Toxic Chemical Release Inventory Form” each year by July 1 to the US-EPA’s EPCRA Reporting Center (address below) and the CT-SERC for each potentially toxic chemical that is stored in quantities above a certain amount if your facility:

1. Is classified in major group 37 under Standard Industrial Classification code (primary classification), AND
2. Has 10 or more full-time employees, AND
3. Stores, uses, or otherwise processes a toxic chemical in an amount above the listed threshold quantity

If your facility meets these three criteria, you must file a Toxic Chemical Release Inventory Form, either a “Form R” or “Form A,” annually by July 1 for each toxic chemical. The reports must be sent to the CT-SERC and EPCRA Reporting Center, P.O. Box 3348, Merrifield, VA 22116-3348, ATTN: Toxic Chemical Release Inventory. Copies of both forms can be obtained by calling the EPCRA hotline at (800) 424-9346, or at <http://www.epa.gov/tri>.

FOR MORE INFORMATION...

Contact the Emergency Planning and Community Right-to-Know Information Hotline at (800) 424-9346, or (703) 412-9810, or TDD (800) 535-7672. Monday through Friday, 9:00 am to 6:00 pm, Eastern Time

Or contact the CT-State Emergency Response Commission, 79 Elm Street, Hartford, CT 06106-5127, (860) 424-3373.

APPENDIX B: HAZARDOUS WASTE MANAGEMENT



Chris Stone

Milford Boat Works, Milford

Hazardous Waste Management in Connecticut

Hazardous wastes are a group of wastes that are subject to special handling requirements because their mismanagement may lead to serious hazards to human health and the environment. The mismanagement of these wastes can also bring about loss of property value or legal action against persons that mismanage them. Many types of wastes can be classified as hazardous wastes, including some materials commonly generated at marinas. This section takes you through a step-by-step process to make sure that you are in compliance with hazardous waste requirements. Proper management of hazardous waste depends on a number of factors: determining which wastes are hazardous, determining your hazardous waste generator status, and then applying the correct requirements based on your hazardous waste generator status.

Note that you are responsible for your hazardous waste from the point of generation to its final disposal.

If you already know that your waste is hazardous and know your generator status, then turn to [Step Three](#) for information on how to handle your hazardous waste.

Step One: Determine Which of Your Wastes are Hazardous

Anyone who generates a waste is required by law to determine whether or not that waste is hazardous [40 CFR 262.11]. Some general knowledge about the basic characteristics of the wastes may be helpful in making this determination, but some laboratory testing is usually required. For more guidance on hazardous waste testing, see the [list of CT-DEP documents at the end of this section](#), or call CT-DEP's Waste Engineering and Enforcement Division at (860) 424-3023 for assistance.

There are two ways a waste may be considered a hazardous waste: (1) if it is *Characteristically Hazardous*, or (2) if it is a *Listed* as a hazardous waste.

Characteristically hazardous wastes ([see table on next page](#)) are wastes that exhibit any one of the four characteristics listed below. An abbreviated definition is given for each one here. They are fully defined in the federal hazardous waste regulations [40 CFR 261.21 through 261.24]. Copies of these regulations may be obtained by contacting CT-DEP or through U.S. EPA's web site at www.epa.gov.

Listed hazardous wastes are wastes that are specifically identified in one of four lists developed by U.S. EPA in the federal hazardous waste regulations [40 CFR 261.31 through 261.33]. Each hazardous waste listing includes a description of a specific type of waste that EPA considers hazardous enough to warrant regulation. Hazardous waste listings describe wastes that are generated by certain industries, come from common industrial processes, or include specific

CHARACTERISTICALLY HAZARDOUS WASTES

| CHARACTERISTIC | DEFINITION | TESTING | MARINA EXAMPLES |
|---------------------|---|--|---|
| IGNITABILITY | liquid wastes with a <i>flash point lower than 140°F, ignitable solids</i> , and materials that are designated by the U.S. DOT as <i>oxidizers</i> . | Laboratory certified by the CT Dept. of Public Health | <ul style="list-style-type: none"> • used solvents • waste gasoline • old signal flares • waste nitric acid |
| CORROSIVITY | liquid wastes with a pH less than or equal to 2.0, or greater than or equal to 12.5 | the most accurate way to determine pH is with a laboratory test. | <ul style="list-style-type: none"> • lead-acid batteries • waste muriatic acid • caustic paint strippers • old drain cleaners |
| REACTIVITY | materials that are: normally unstable; react violently, explode, or emit toxic fumes when mixed with water; or, are capable of exploding at room temperature and pressure or when heated under confinement. | Laboratory certified by the CT Dept. of Public Health | <ul style="list-style-type: none"> • cyanide compounds • non-empty aerosol cans • blasting caps • dynamite • other explosives |
| TOXICITY | materials containing greater than the regulated concentration of any of 40 contaminants listed in the federal hazardous waste regulations [40 CFR 261.24] | Determined in a certified lab by a test called the Toxicity Characteristic Leaching Procedure (TCLP) | <ul style="list-style-type: none"> • lead-based paint chips • spent methyl ethyl ketone solvent • waste gasoline (contains benzene) • old containers of chlordane pesticide |

chemical compounds as their main active ingredient. Several hundred specific solvents, metal finishing waste streams and sludges, pesticides, various organic and inorganic chemicals and discarded commercial chemical products are included in these lists.

The four groups of listed hazardous wastes are easily identified by the letter that begins their 4-digit EPA waste code (i.e., “F,” “K,” “U,” or “P”). The four groups are classified as follows:

LISTED HAZARDOUS WASTES

| LISTED WASTE | DEFINITION | MARINA EXAMPLES |
|---------------------------|--|---|
| “F” WASTES | wastes from certain common, nonspecific industrial activities | <ul style="list-style-type: none"> • spent chlorinated solvents (e.g., methylene chloride, 1,1,1-trichloroethane, perchloroethylene) • waste paint solvents (e.g., acetone, methyl alcohol, butyl alcohol, xylene, methyl ethyl ketone (MEK), methyl isobutyl ketone (MIBK), ethyl acetate) |
| “K” WASTES | Wastes from certain specific industrial processes | Rarely, if ever, generated by marinas |
| “U” AND “P” WASTES | Discarded commercial chemical products, off-spec products, container residues, and spill residues of such products | Not commonly generated by marinas <ul style="list-style-type: none"> • certain old pesticides, solvents, and other chemical products |

Non-RCRA-Hazardous “Connecticut-Regulated” Wastes.

If a waste is neither characteristically hazardous nor listed, then it is not subject to Connecticut’s hazardous waste requirements. However, under separate state law [CGS §22a-454], certain wastes may not be disposed of as regular solid waste (i.e., trash) disposal facilities, but must instead be sent to specially-permitted facilities that are equipped to handle industrial wastes. In general, the kinds of wastes that are subject to these special requirements include waste oils, petroleum or chemical liquids, and chemical solids (generally referred to collectively as “Connecticut-Regulated Wastes”).

Some examples of CT-Regulated Waste that might be generated at marinas may include:

- Non-hazardous paint-related wastes (e.g., sandblasting grit, bottom sanding dust, paints, solvents, cleanup residues, etc.)
- Non-hazardous rags/wipers contaminated with oil, grease, cleaners, paints, solvents, etc.
- Non-hazardous antifreeze
- Waste diesel fuel
- Used oil

These wastes cannot be placed in an on-site dumpster, but must instead be segregated and picked up by a hauler that is permitted to transport Connecticut-Regulated Wastes. However, there is an exemption from transporter permit requirements for “waste chemical solids” (e.g., dried latex paint or paint chips). Such wastes do not have to be hauled by a permitted transporter, but they must still be sent to a permitted storage treatment or disposal facility. If sent to a facility in Connecticut for treatment or disposal, this facility must be permitted to take Connecticut-Regulated Wastes. There are no requirements for generators of these materials, other than that they ensure that they are properly disposed. However, as a best management practice, store these materials in manner similar to that for hazardous waste (i.e., in secure, closed containers, in a storage area with an impervious base and secondary containment, etc.). When the material is shipped, the law does not require that the generator prepare a waste manifest. However, as a practical matter, generators will often find that their haulers will ask for one (either for their recordkeeping purposes, or because it is required under the receiving facility’s operating permit).

For more information on Connecticut Regulated Wastes, contact CT-DEP’s Waste Engineering & Enforcement Division and ask for the free fact sheet entitled “Non-RCRA Hazardous Wastes (Connecticut-Regulated Wastes).” This document is among several helpful [documents listed at the end of this section](#).

FREQUENTLY ASKED QUESTIONS ABOUT HAZARDOUS WASTE DETERMINATIONS

Q: I'm pretty sure that my waste is hazardous. Do I still have to test it?

A: There are two “tools” that may be used to determine if a waste is hazardous. The first of these is analytical testing. The second is to use information about the source, nature and contaminants of the waste (i.e., so-called “knowledge of process” information). Common sources of knowledge of process information include Material Safety Data Sheets (MSDSs), product specification sheets, or analytical results from the testing of an identical waste stream generated at another site. Although knowledge of process information can be very useful (especially in identifying hazardous constituents that are known to be present), it typically is not adequate to fully and properly characterize a waste. In particular, knowledge of process cannot account for factors such as trace contaminants that may not be listed on a MSDS, contaminants introduced during use, and cross-contamination from other wastes. As a result, some sampling is typically required to properly characterize a waste.

Q: Where can I get my waste tested?

A: The Connecticut Department of Public Health licenses analytical laboratories in Connecticut, and several dozen of these labs are capable of doing hazardous waste testing. To get a list of these labs, call CT-DEP's Waste Engineering and Enforcement Division at (860) 424-3274. Many of these labs are also listed in the Yellow Pages under “Laboratories – Analytical.”

Q: How often do I have to test my wastes?

A: Connecticut's hazardous waste rules require that generators test their waste annually, or whenever there is a raw material or process change that could affect the waste. However, if a generator can document that a waste has not changed over time (such as by having several previous years' analyses showing consistent testing results), this may constitute a valid basis on which to make a “knowledge of process” claim (see first question above).

Q: What if my waste is hazardous for more than one thing?

A: Some wastes can be hazardous for more than one characteristic, or can be both listed and characteristically hazardous. For example, waste gasoline might be hazardous for the ignitability characteristic AND exhibit the toxicity characteristic for benzene. Hazardous waste rules require generators to determine *all* the applicable waste codes that apply to a waste, and list them on the manifest when the waste is shipped off-site.

Q: If my hauler tests the waste, do I have to test it, too?

A: Oftentimes transporters and/or receiving facilities will test waste that they accept (either to confirm information provided by the generator, or because their operating permit requires them to perform certain testing for quality control purposes). If the transporter or receiving facility is willing to provide this information, the generator may use it in complying with hazardous waste determination requirements. However, it must be stressed that this kind of test data may not be adequate to fully characterize a waste, and additional testing or “knowledge of process” information may be needed to round out the waste determination.

Step Two: Determine Your Hazardous Waste Generator Status

If, at the end of Step One, you have determined that you do not generate any hazardous wastes, then congratulations! You're done! If none of the wastes that you generate are hazardous (or if you can eliminate any hazardous wastes you *do* generate), then you do not have to comply with any hazardous waste requirements. You just need to keep records of your test results documenting that your wastes are non-hazardous.

However, if any of your wastes are hazardous, you must take some additional steps to determine the requirements that apply to your handling of these wastes. Generators of hazardous waste are subject to different requirements, depending on the amount of waste they generate and store on-site. There are three types of hazardous waste generators:

1. **Conditionally Exempt Small Quantity Generators (CESQG):** facilities generating less than 220 pounds (about 26 gallons) per month and accumulating no more than 2,200 pounds of hazardous waste on-site at any one time and that generate less than 2.2 pounds per month of acutely hazardous waste.*
2. **Small Quantity Generators (SQG):** facilities generating between 220 and 2,200 pounds (about 26 to 260 gallons) per month and accumulating no more than 2,200 pounds on-site of hazardous waste at any one time and that generate less than 2.2 pounds per month of acutely hazardous waste.*
3. **Large Quantity Generators (LQG):** facilities generating more than 2,200 pounds per month or accumulating more than 2,200 pounds on-site at any one time of hazardous waste, or that generate more than 2.2 pounds per month of acutely hazardous waste.*

*Acutely hazardous wastes are a subset of hazardous wastes that are particularly hazardous, and are therefore regulated in much smaller amounts than regular hazardous wastes. Typically, the wastes generated by marinas will not fall into this category, although certain wastes may (for example, certain pesticides which are "P" listed wastes).

For more detailed information, call the CT-DEP's Waste Engineering & Enforcement Division at (860) 424-3023 and ask for the fact sheet, *Hazardous Waste Generator Category* (4/96), listed at the end of this section, which will help you determine what set of requirements you are subject to.

Step Three: Properly Store and Dispose of Your Hazardous Waste

Once you have determined your generator status, the next step is to determine the requirements that apply, and ensure that your facility is in compliance with them. [Table 1 on page 102](#) provides an overview of the various requirements that apply based on generator status. Details on these requirements are provided below.

1. Conditionally Exempt Small Quantity Generators

Many marinas will qualify as CESQGs, which have the fewest requirements of the three hazardous waste generators. The requirements and best management practices (BMPs) for CESQGs are listed below. If you would like more information on these requirements and BMPs, contact the CT-DEP's Waste Engineering and Enforcement Division at (860) 424-3023 and ask for the free booklet entitled *Conditionally Exempt Small Quantity Generator Handbook*. Several other helpful [documents which are available](#) are also listed at the end of this section.

In general, if you are a CESQG, then you must do the following:

[RCSA §22a-449(c)-101(b), 40 CFR 261.5]

- Ensure that your waste is disposed of at a permitted hazardous waste treatment or disposal facility, or at a household hazardous waste facility (or one-day collection event that is permitted to take CESQG waste).
- If you hire a waste hauler to take away your waste, be sure that hauler has a valid EPA Identification number and transporter's permit to haul waste in Connecticut.
- Perform a hazardous waste determination on all the wastes you generate, and keep records of all test results and other information used to make these determinations for at least three years from the date that the waste was last sent off-site for disposal.
- Comply with Universal Waste requirements for any Universal Wastes that you generate. Universal Wastes are wastes that are subject to a special, reduced set of requirements in 40 CFR 273, and include batteries, recalled pesticides, mercury thermostats, and fluorescent lamps. (For more information on Universal Wastes, call the CT-DEP's Engineering & Enforcement Division at (860) 424-3023 and request the fact sheet entitled "Universal Waste Rule.")
- Remember: if at any time your waste generation or storage amounts increase beyond CESQG levels, you must comply with the requirements for the higher generator category.

Best Management Practices for CESQGs:

- Look for ways to reduce or eliminate the generation of hazardous waste (see page 106 for "[Hazardous Waste Minimization Tips](#)"). If possible, completely eliminate the generation of hazardous waste, and avoid having to comply with hazardous waste requirements altogether.
- If you store waste in containers, keep them in an area which has an impervious base and secondary containment to capture any leaks or spills. Use containers that are compatible with the waste you are putting in them, and store waste containers away from other wastes or raw materials with which they may be incompatible. In addition, ensure that the containers are kept closed and in good condition, and immediately replace or over-pack any damaged or leaking containers. Do not store hazardous waste within 50 feet of the facility property line, or immediately adjacent to rivers, streams, or shorelines.

- If you store waste in tanks, provide the tank with an impervious base and secondary containment to capture any leaks or spills (or, as an alternative, use double-walled tanks). Maintain the tanks to ensure they remain in good condition. Ensure that the fill opening for the tank is properly equipped so as to prevent spillage down the outside of the tank, and keep this opening closed at all times except when filling the tank. Be sure that the waste(s) that you place in the tank are compatible with the tank, and do not store wastes that are incompatible with one another in the same tank.
- Inspect all waste storage areas on a regular basis (e.g., weekly), looking for leaks, spills, damaged containers, and other hazardous conditions. Correct any problems as quickly as possible. Document your inspections in a written inspection log.
- If you discontinue the use of a tank or container storage area, remove all waste, thoroughly clean and decontaminate the area, and perform post-decontamination testing to confirm that no waste residues remain.
- Develop written emergency procedures to respond to leaks, spills, fires, storms, floods, etc.
- Provide training for all personnel involved in waste management. Include, at a minimum, training in proper waste handling and emergency response procedures. Retain documentation of all training that is provided.

2. Small Quantity Generators

Many marinas will qualify as SQGs, which have more requirements than CESQGs, but fewer than LQGs. The requirements and best management practices for SQGs are listed below. If you would like more information on these requirements and BMPs, contact the CT-DEP's Waste Engineering and Enforcement Division at (860) 424-3023 and ask for the free booklet entitled *Small Quantity Generator Guidance*. Several other helpful [documents which are available](#) are also listed at the end of this section.

In general, if you are a SQG, then you must do the following:

[RCSA §§22a-449(c)-102(b) and -102(c), 40 CFR 262.34(d)]

- If you have not done so already, apply for and obtain an EPA Identification Number. To do this, you will need to contact CT-DEP's Waste Engineering & Enforcement Division and request EPA Form 8700-12, *Notification of Hazardous Waste Activity*. Once you have filled out this form and sent it to CT-DEP, you will be provided with the EPA ID Number.
- Be sure your waste hauler has a valid EPA Identification number and transporter's permit to haul waste in Connecticut.
- Ensure that your waste is disposed of at a permitted hazardous waste treatment or disposal facility.
- Perform a hazardous waste determination on all the wastes you generate, and keep records of all test results and other information used to make these determinations for at least three years from the date that the waste was last sent off-site for disposal.

| TABLE 1: Overview of Hazardous Waste Requirements Based on Generator Category | | | |
|---|--|---|---|
| | Large Quantity Generators | Small Quantity Generators | Conditionally Exempt SQGs |
| Hazardous Waste Generation Rate (per calendar month) | More than 2200 lbs of haz. waste OR more than 2.2 lbs of acute haz. waste. | More than 220 lbs but less than 2200 lbs of hazardous waste AND less than 2.2 lbs of acute hazardous waste. | Less than 220 lbs of hazardous waste AND Less than 2.2 lbs of acute haz. waste. |
| Max amount of Hazardous Waste on-site | None | 2200 lbs. | 2200 lbs. |
| Max. storage time | 90 days | 180 days | No limit |
| Waste Determination Required? | Yes | Yes | Yes |
| Generator EPA ID Number Required? | Yes | Yes | No |
| Manifest required for shipment off-site? | Yes | Yes | No |
| Permitted transporter required? | Yes | Yes | Yes |
| Allowed disposal facilities | Permitted hazardous waste treatment, storage, or disposal facilities. | Permitted hazardous waste treatment, storage, or disposal facilities. | Permitted hazardous waste treatment, storage, or disposal facilities; authorized household hazardous waste collection facilities. |
| Storage requirements | See text. | See text. | None. However, see BMPs for CESQGs. |
| Emergency Procedures/Plans | Full written contingency plan. See text for details. | Emergency coordinator and post information near on-site telephone. See text for details. | None. However, see BMPs for CESQGs. |
| Inspection requirements | Written inspection schedule and log. See Section 3 for details. | Written inspection schedule and log. See text for details. | None. However, see BMPs for CESQGs. |
| Personnel training requirements | Written training plan and formal classroom training. See text for details. | Employees must be familiar with waste handling & emergency procedures. See text for details. | None. However, see BMPs for CESQGs. |
| Recordkeeping requirements | Must retain manifests, biennial reports, waste determinations (w/ test results), inspection logs, and records of incidents requiring implementation of the contingency plan. | Must retain manifests, waste determinations (w/ test results), and inspection logs. | Records of waste determinations (w/ test results) |
| Biennial report? | Yes | Not required after 2001 | No |

- Prepare a hazardous waste manifest for each shipment of waste off-site, and retain a copy of the manifest for each shipment. Ensure that the required Land Disposal Restriction (“LDR”) Notices accompany each manifested shipment, and retain copies of these notices on-site.
- Ensure that you do not store waste for more than 180 days.
- If you store waste in containers, mark each container with the words “hazardous waste,” a description of the contents, such as the chemical name, and the date of initial accumulation. Store containers in an area which has an impervious base, and secondary containment that is capable of containing the volume of the largest container stored in the area, or ten percent of the total volume of waste stored in the area (whichever is greater). Use only containers that are compatible with the waste you are putting in them, and store waste containers away from other wastes or raw materials with which they may be incompatible. In addition, ensure that containers are kept closed and in good condition, and immediately replace or over-pack any damaged or leaking containers. And, when shipping containers of hazardous waste off-site, ensure that they are properly packaged, marked and labeled in accordance with U.S. DOT shipping requirements for hazardous materials.
- If you store waste in tanks, mark each tank with the words “hazardous waste,” and a description of the contents, such as the chemical name. Ensure that the waste is compatible with the tank (e.g., don’t put corrosive waste in an unlined steel tank) and do not store wastes that are incompatible with one another in the same tank. Do not use uncovered tanks. Ensure that ignitable and reactive wastes that are stored in tanks are separated from sources of ignition or reaction (e.g., open flames, smoking, welding, sparks, etc.).
- If you discontinue the use of a tank or container storage area, remove all waste, thoroughly clean and decontaminate the area, and perform post-decontamination testing to confirm that no waste residues remain.
- Develop a written inspection schedule which lists the areas of the facility to be inspected and describes procedures to be followed during inspections. Perform inspections of all hazardous waste storage areas (weekly for containers, daily for tanks), looking for leaks, spills, damaged containers, and other hazardous conditions. Correct any problems as quickly as possible. Document your inspections (and any corrective actions taken to address noted problems) in a written inspection log, and keep these records for at least three years.
- Designate an emergency coordinator and post the name and telephone number of this coordinator next to the on-site telephone, along with the locations of fire extinguishers and spill control material, the fire alarm (if you have one), and the telephone number of the local fire department (i.e., 911). Make arrangements with local emergency response authorities to coordinate emergency services in the event of an emergency.
- Ensure that whenever waste is being handled, personnel have access to an internal alarm or emergency communication device.
- In the event of an emergency (e.g. fire, explosion, waste spill, severe storm, flood, etc.), take appropriate steps to ensure that hazardous waste

is not released into the environment. Notify local emergency response authorities (i.e., local fire and/or police departments). If a spill has occurred, report it to the CT-DEP's Oil and Chemical Spill Response Division via its 24-hour spill reporting hotline at (860) 424-3338. If there is a release of hazardous waste that could threaten human health outside your facility, you must also contact the National Response Center at (800) 424-8802. Contain and properly dispose of any spilled or leaked waste (or hire a permitted spill cleanup contractor to perform this work).

- Train all personnel involved in hazardous waste management in proper waste handling and emergency procedures relevant to their specific job duties.
- Comply with Universal Waste requirements for any Universal Wastes that you generate. Universal Wastes are wastes that are subject to a special, reduced set of requirements in 40 CFR 273, and include batteries, recalled pesticides, mercury thermostats, and fluorescent lamps. (For more information on Universal Wastes, contact the CT-DEP's Waste Engineering and Enforcement Division at (860) 424-3032 and request the fact sheet entitled "Universal Waste Rule.")
- Remember: if at any time your waste generation or storage amounts increase beyond SQG levels, you must comply with Large Quantity Generator Requirements.

Best Management Practices for SQGs:

- Look for ways to reduce or eliminate the generation of hazardous waste (see page 106 for "[Hazardous Waste Minimization Tips](#)"). For some SQGs, eliminating even a small amount of waste generation will be enough to allow them to reduce to CESQG status.
- Do not store hazardous waste within 50 feet of the facility property line, or immediately adjacent to rivers, streams, or shorelines.
- If you store waste in tanks, provide the tank with an impervious base and secondary containment to capture any leaks or spills (or, as an alternative, use double-walled tanks). Ensure that the fill opening for the tank is properly equipped so as to prevent spillage down the outside of the tank.
- Develop written emergency procedures to respond to leaks, spills, fires, storms, floods, etc.
- Document the hazardous waste training that you provide to your employees.

3. Large Quantity Generators

Few marinas are likely to fall into this generation category. However, for those that do, the applicable requirements for LQGs are listed below. All of the requirements and BMPs for LQGs are described in detail in a series of free fact sheets which are available free from CT-DEP (see list at the end of this section).

In general, LQGs must comply with the requirements listed in Section 2 above for Small Quantity Generators, as well as the following, additional requirements:

[RCSA §22a-449(c)-102(b), 40 CFR 262.34(a) and (b)]

- LQGs may not store wastes for more than 90 days.
- LQGs may not store containers of hazardous waste within 50 feet of the facility property line.
- LQGs that store hazardous waste in tanks must comply with numerous additional requirements. In particular, these tanks must be designed in accordance with special design and installation requirements, and must be tested for tightness prior to use. LQG tanks must also be provided with special secondary containment and leak detection systems, and spill prevention and overfill controls. LQGs are subject to special requirements in the event of a spill or leak, or if the tank becomes unfit for use. When LQGs permanently cease using a tank, they must perform special cleanup and decontamination activities, and, if the former tank storage area cannot be fully cleaned up, then the area must be closed in accordance with requirements for hazardous waste landfills. LQGs must have their tanks inspected by a independent, registered, professional engineer, and certified as to their integrity and compliance with the above requirements.
- LQGs must comply with special air emission standards for their tanks and containers (i.e., 40 CFR Subparts AA, BB, and CC).
- LQGs must have a written contingency plan that includes emergency procedures in the event of a fire, explosion, spill, or other emergency. This plan must include the names, addresses, and telephone numbers of all persons qualified to act as emergency coordinator, a list of all emergency equipment at the facility (including the locations and brief descriptions of each item on the list), and a facility evacuation plan. The plan must also describe arrangements with local emergency authorities to coordinate emergency services.
- LQGs must have a formal personnel training program that provides both initial training and annual refresher training. The training program must include a written description of the training, a list of names, job titles and descriptions for all personnel involved in hazardous waste management, and records documenting that all required training has been provided. These records must be retained until closure of the facility (or for at least three years after an employee last worked at the facility).
- LQGs must submit biennial hazardous waste reports to CT-DEP, and keep copies of these reports for at least three years.

Best Management Practice for LQGs:

- Look for ways to reduce or eliminate the generation of hazardous waste (see page 106 for “[Hazardous Waste Minimization Tips](#)”). As is clear from Table 1 and the above bullets, there are many advantages to reducing your generator status (e.g., longer storage times, fewer requirements to comply with, etc.).

HAZARDOUS WASTE MINIMIZATION TIPS

Waste minimization means finding ways to reduce or eliminate the generation of hazardous waste. Some general ways to do this include:

- *Eliminate activities that generate hazardous waste (e.g., by discontinuing certain services, or sub-contracting them out to off-site companies).*
- *Alter work practices and/or equipment so that you use less virgin material. Obviously, using less virgin material means generating less waste.*
- *Recycle or reuse materials on-site.*
- *Switch from hazardous products to non-hazardous ones.*

Some specific waste minimization options for the marina industry include:

- **Used Oil:** *Keep hazardous waste and other contaminants out of your used oil so that it does not have to be handled as a hazardous waste.*
- **Waste Fuel (gasoline, diesel):** *Send the waste fuel that you generate for recycling (fuel blending) rather than for disposal or incineration. Waste fuels that are recycled in this way are exempt from regulation as hazardous waste.*
- **Parts Washing:** *Switch from a hazardous parts washing solvent (low-flash mineral spirits, chlorinated solvents) to a non-hazardous one (high-flash mineral spirits or water-based cleaners).*
- **Paint Stripping:** *Instead of sandblasting or using hazardous paint strippers (methylene chloride) to remove paint, use non-hazardous strippers or dustless sanders.*
- **Paints/Solvents:** *Look into having painting done by off-site contractors. If you must paint on-site, use as little paint and as little solvent as possible to get the job done. Look into non-hazardous solvents for cleaning up, etc. Reuse solvents by settling out the paint solids, or recycle them in an on-site solvent recycling still.*
- **Engine Coolant (Antifreeze):** *Reuse or recycle antifreeze on-site.*
- **Rags/Wipers:** *Use only non-hazardous cleaning agents/solvents for cleanup. Send your rags to an industrial laundry instead of disposing of them.*
- **Batteries (Lead-Acid and Household Types):** *Send batteries for recycling rather than disposing of them. Manage batteries under reduced “Universal Waste Rule” requirements [40 CFR 273].*
- **Old Virgin Products:** *Marinas that stock products for their customers (e.g., paints, solvents, cleaners) often find that they must dispose of old or damaged products as hazardous wastes. To avoid this, try not to stock items which are hazardous. If this is not possible, see if the manufacturer will take the material back, or if there is someone else who can legitimately use the product.*

**Hazardous Waste Management
Documents Available from the Bureau of Waste Management,
Engineering & Enforcement Division: (860) 424-3023**

| TITLE | DATE | GENERAL TOPIC |
|--|---------------|--|
| Hazardous Waste Management Regulations | 10/31/01 | CT's rules for the management of hazardous waste, which incorporate the federal rules with certain additions and modifications |
| Fact Sheet: "DEP Issues New Hazardous Waste Regulations" | 1/29/02 | Summary of the new provisions in the above regulations. |
| Conditionally Exempt Small Quantity Generator Handbook | 2/98 | Requirements for generators of less than 100 kg/month of hazardous waste. |
| Small Quantity Generator Guidance | 2/98 | Requirements for generators of between 100 kg/month and 1000 kg/month of hazardous waste. |
| Hazardous Waste Generator Category | 4/96 | Helps generators determine what set of requirements they are subject to. |
| Hazardous Waste Determinations/ Knowledge of Process | 9/96 | Guidance on how to determine if a waste is hazardous. |
| Hazardous Waste Personnel Training | 4/96 | Describes personnel training requirements for large quantity generators. |
| Hazardous Waste Inspections | 4/96 | Describes inspection requirements for large quantity generators. |
| Hazardous Waste Contingency Plan | 4/96 | Describes emergency planning and response requirements for large quantity generators. |
| Hazardous Waste Container Management | 4/96 | Describes container management requirements for large quantity generators. |
| Permitted Waste Transporter's List | 1/10/02 | List of companies who are permitted to haul hazardous waste in or through CT. |
| List of Commercial Hazardous Waste and Connecticut Regulated Waste Facilities in Connecticut | 1/01 | List of facilities in CT that are permitted to store, treat, or dispose of commercial and industrial wastes. |
| Non-RCRA Hazardous Wastes (Connecticut Regulated Wastes) | 1/25/95 | List of non-hazardous wastes which are subject to special requirements in CT. |
| COMPASS (Hazardous Waste Compliance Assistance Program) Document Package | 10/97 | Summary of COMPASS program, plus fact sheets regarding hazardous waste generator category, use of manifests, container management, inspections, personnel training, and contingency plan requirements. |
| Pollution Prevention Options — Fact Sheets for Industry | 9/96 | A collection of numerous industry- and process-specific fact sheets designed to help companies reduce or eliminate the generation of hazardous waste. |
| Pit Stops Fact Sheets | 1/00 | A collection of 14 fact sheets regarding various wastes generated from vehicle maintenance and painting operations. |
| Guidance for the Management and Disposal of Lead-Contaminated Materials Generated in the Lead Abatement, Renovation, and Demolition Industries | 10/18/96 | Comprehensive guidance on the proper handling of wastes which contain lead-based paint. |
| Disposal of Building Materials Coated with Lead-Based Paint | 2/99 | Brief, two-page companion to the above guidance, intended for homeowners and small contractors. |
| Antifouling Paint Fact Sheets | 7/98 DRAFT | Draft fact sheets aimed at marinas and individual boat owners who are using and removing antifouling paints. |
| Management of Used Oils in Connecticut | 1/99 DRAFT | Comprehensive guidance on the management of used oils and other oily wastes in CT. |
| Used Oil Supplemental Fact Sheet #10: Used Oil from Boats, Ships, and Other Watercraft | 1/99 DRAFT | Brief, four-page fact sheet intended for marinas and individual boat owners that generate used oil. |
| Management of Aerosol Cans | 4/99 | Two-page fact sheet on the proper management and disposal of aerosol cans. |
| Universal Waste Rule | 12/01 | Overview of special, reduced hazardous waste requirements for batteries, mercury thermostats, recalled pesticides, and fluorescent lamps. |

**Hazardous Waste Management
Documents Available from the Bureau of Waste Management,
Planning & Standards Division: (860) 424-3022**

| TITLE | DATE | GENERAL TOPIC |
|--|-------------|--|
| Facility Pollution Prevention Guide | 5/92 | Comprehensive pollution prevention guidance manual developed by EPA |
| Profile of the Shipbuilding and Repair Industry | 9/97 | Detailed EPA analysis of the processes and waste management activities associated with shipbuilding and repair facilities. |
| Water Based Paints — A Pollution | 1/98 | Case study of an autobody shop that reduced air emissions and waste generation by switching to water based paints. |
| New Parts Cleaning Systems Eliminate Hazardous Waste — A Pollution Prevention Case Study | 1/98 | Case study of efforts by the USPS to reduce hazardous waste generation at its vehicle maintenance facilities |
| Used Oil Regulations — A Quick Guide for Auto Repair Shops | Not Dated | Quick guide on used oil requirements in Connecticut. Available in English, Spanish, and Portuguese. |
| Recycling Used Oil — Ten Steps to Change Your Oil | 6/89 | EPA leaflet aimed at household do-it-yourselfers. |
| Antifreeze | 1/98 | One-page fact sheet aimed at household do-it-yourselfers. |
| Degreasers | 1/98 | One-page fact sheet aimed at household do-it-yourselfers. |
| The Metropolitan District's 2001 Household Hazardous Waste Collection Program | 4/20/01 | Description of MDC's collection program, covering a large number of towns in central Connecticut. |
| Managing Household Hazards: Household Hazardous Waste Vendors | 2/01 | A listing of 10 potential household hazardous waste collection vendors. |
| Managing Household Hazards: Conducting a Paint Exchange | 1/99 | An outline of a program to locate outlets for leftover, unused paint. Includes a list of potential vendors. |
| Managing Household Hazards: Managing Household Batteries | 9/97 | Information on the proper disposal of a variety of small household batteries. |
| Business Recycling: Automobile Battery Markets | 12/89 | A listing of potential battery recycling vendors. |

APPENDIX C: USED OIL MANAGEMENT



Kim Czapl

Chrisholm Marina, Chester

Used Oil Management in Connecticut

What is Used Oil?

Used oil includes used crankcase (engine) oil, used liquid and semi-solid gear, chain, and ball bearing lubricants, and used hydraulic fluid. Materials that contain or are contaminated with used oil can also fall under the definition of used oil, such as used oil filters, oily rags and wipers, used absorbents, and oily wastewater.

What State and Federal Requirements Apply?

Used oil is a regulated waste in Connecticut [RCSA §22a-449(c)-119 and 40 CFR 279], and must be recycled [RCSA §22a-241b-2(1)(I)].

Is it Hazardous?

Used oil is not considered hazardous waste unless it is mixed with a hazardous waste such as a chlorinated solvent. If used oil has been mixed with a hazardous waste, see [Appendix B](#) for management requirements.

How Should a Marina Manage the Used Oil it Generates?

Note that used crankcase oil, automatic transmission fluid, power steering fluid and hydraulic fluid are all considered used oil and can be mixed and managed together.

There are a few options for managing used oil. Two of the most common are collecting it, testing it and having it hauled away for recycling, or collecting it, testing it and burning it in on-site space heaters. If the used oil tests positive for hazardous constituents, it must be managed as hazardous waste (see [Appendix B](#)). If the used oil does not test positive for hazardous waste, the options for management are:

COLLECT, TEST, HAUL

1. Collect and store used oil in a secure collection tank or drum, separate from other wastes ([proper storage described on page 110](#)).
2. Test the used oil for total halogen content ([see sidebar on next page](#)). Maintain records on site.
3. Contract with a permitted waste oil transporter to haul oil to a permitted recycling facility. Commercial haulers of such used oil must be permitted to transport used oil in Connecticut. Contact CT-DEP's Waste Bureau at (860) 424-4193 for a list of permitted commercial transporters.

OR

COLLECT, TEST, BURN

1. Collect and store used oil in a secure collection tank or drum, separate from other wastes ([proper storage described on page 110](#)).
2. Test the used oil for total halogen content ([see sidebar on next page](#)). Maintain records on site.

3. Burn the used oil in space heaters for energy recovery, i.e., to heat your shop, providing the heater burns only used oil generated on-site or received from “do-it- yourself” oil changers.

NOTE: Used oil heaters must:

- a. have a maximum design capacity of not more than 0.5 million BTU's per hour; and
- b. vent combustion gases outside the building; and
- c. burn only used oil that you generate or that you have collected from your do-it-yourselfer customers.

For more information on burning used oil at your marina, contact CT-DEP's Waste Bureau at (860) 424-4193 and Air Bureau at (860) 424-3443.

What are the Requirements for Used Oil Storage in Tanks or Containers?

- Place the tank or container on an impervious base. If the tank or container is outdoors, you must provide for secondary containment equal in volume to the capacity of the storage tank. If the tank or container is indoors, no secondary containment, device or structure is required [RCSA §22a-449(c)-119(b)(2)].
- Label the tank or container “Used Oil” [40 CFR 279.22(c)].
- Use a licensed waste oil transporter to haul the oil to a permitted recycling facility for processing [CGS §22a-454].
- Keep results of used oil testing [RCSA §22a-449(c)-119(b)(1)(C)].
- Prepare a Spill Prevention, Control, and Countermeasures (SPCC) Plan if you store more than 1,320 gallons of used (or new) oil above-ground (containers of less than 55 gallons are exempt from the total) [40 CFR 112.1]. See [Appendix E](#) for more information.

What are Recommended Practices for Used Oil Storage in Tanks or Containers?

- Locate the tank or container in an aboveground area, preferably roofed, that will prevent unauthorized access or vandalism, minimize possibility of fire or explosion and accidental release of oil to the environment.
- Lock the tank or container's fill spout when not in use.
- Visually inspect the tank or container on a regular basis for leaks or malfunctions. Maintain written inspection records.
- Instruct all employees who handle used oil on the proper operation and management of the oil storage area. Assign one person the responsibility for monitoring oil storage.
- Use kitty litter, saw dust or a commercially available product to absorb oil from minor spills.
- If providing a collection tank or container for used oil from your customers who do their own engine maintenance, clearly label the tanks or containers to indicate the importance that ONLY used oil be placed in the tank. Remember that you'll be responsible to pay for disposal of used oil that is contaminated with hazardous waste.



When testing used oil for hazardous constituents, four steps must be taken in this order: 1) determine if it is mixed with any listed hazardous waste; 2) determine if it has been mixed with any characteristic hazardous waste; 3) test for total halogens (if the oil contains total halogens of greater than 1,000 parts per million (ppm), it must be managed as hazardous waste); 4) if the oil tested at over 1,000 ppm, you can rebut the presumption of mixing by having the oil tested for the presence of chlorinated solvents. If no listed hazardous waste solvent is present over 100 ppm, the oil does not have to be managed as hazardous waste.



Used oil testing can be conducted in a laboratory, or marina personnel can test for total halogens using inexpensive, EPA-approved total halogen field testing kits. These total halogen test kits are available from numerous sources, including industrial supply or health and safety supply companies. The following list is not an endorsement of the companies or their product, but offered for your information: CHLOR-D-TECT 1000 or CHLOR-D-TECT Q4000 (available from Dexsil Corp, Hamden, CT, www.dexsil.com) or, Quantichlor (available from CHEMetrics, Inc, Caverton, VA, www.chemetrics.com)

- Keep records of used oil collection.

If only used oil generated on-site is stored in the tank or container, no state permits are needed to install an above ground collection tank, but check with your municipality because local permits might be needed.

CT-DEP discourages installation of new underground storage tanks (UST). Since November 1985, it has been illegal to install any nonresidential UST component which is neither fiberglass-reinforced plastic (i.e., noncorrosive) nor which has a manufacturer-applied anti-corrosive coating and cathodic protection. Registration with CT-DEP is required. Contact CT-DEP's UST Program at (860) 424-3374 for more information.

If a Marina Accepts Used Oil That Boaters Generate, How Should it be Managed?

Many marinas collect used oil from customers as a client service. Manage this oil in the same way as oil generated by the marina itself.

It may make sense to separate the waste area where you are collecting wastes from boaters from those generated by the marina, since you have more control over the wastes generated by your staff than by your clients. Used oil contaminated with a hazardous substance is much more costly to dispose of than unadulterated used oil. Educate your staff about the importance of keeping used oil from being contaminated with hazardous substances.

If you collect customers' oil, remind boaters not to:

- mix used oil with antifreeze or hazardous waste, i.e. waste gasoline.
- burn used oil in residential boilers or space heaters.
- dump used oil overboard.
- pour used oil into sewers or storm drains.
- dump used oil on the ground, use it for weed control, or to keep dust down.

How Do Used Oil Rules Apply When a Vessel is at the Dock?

Used oils which are generated on board boats and personal watercraft become subject to CT-DEP's used oil regulations at the time that the used oil is actually transferred ashore. Depending on the relationship between the owner/operator of the vessel and the dock at which used oil is being off-loaded, the used oil regulations may apply differently, as outlined in the following three examples:

- (1) *The owner/operator of the vessel is the same as the owner/operator of the facility receiving and storing the used oil.* In this case, the marina is simply acting as a generator of used oil, and is not required to have a permit to transfer this used oil ashore or store it prior to shipping it off-site for proper disposal.
- (2) *The owner/operator of the vessel is different from the owner/operator of the facility, but the used oil is generated as the result of maintenance performed by the facility.* In this case, the used oil is generated as part of maintenance activities performed by the port or dock facility. Therefore, the owner/operator of the vessel and marina are considered "co-generators" of the used oil. Although the marina usually assumes this

responsibility for compliance with the generator requirements for this used oil, both are considered equally responsible for ensuring that the used oil is properly managed.

- (3) *The marina collects used oil from do-it-yourselfers.* In this case, the dock facility is acting as a “do-it-yourselfer used oil collection center” which is subject to the same rules as used oil generators. No permit is required for this activity as long as all used oil that is collected was generated on-site.

Can Used Oil Be Mixed with Diesel Fuel, as Recommended by the Manufacturers of Some Diesel Engines?

The manufacturers of certain diesel engines recommend that you add used oil to your diesel fuel. If you have a diesel engine of this type, you may mix your used oil with virgin diesel fuel according to the manufacturer’s instructions. However, up until the point that the used oil is actually mixed with the diesel fuel, it must be handled exactly the same as any other used oil.

Please note that this exemption applies only to your used oil and only if it is used in your own diesel engines. You may not add your used oil to diesel fuel that will be used in someone else’s diesel engines. You may also not accept used oil from someone else to put into your diesel fuel.

How Should Used Oil Absorbent Material Be Disposed?

Materials that *contain* or are *contaminated with* used oil can also fall under the definition of used oil. The most common of these materials are used oil *absorbent pads, rags and wipers*, and *absorbents* (such as kitty litter, speedi-dri, and absorbent pigs).

Boaters or marina staff doing work on customers’ boats dockside can dispose of oil absorbent materials generated while conducting maintenance by double-bagging the absorbent material and disposing in the regular trash. Boaters can also take their waste oil absorbents to a household hazardous waste collection facility for disposal or to a collection area provided by the marina.

Marina staff that produce waste oil absorbent material as a result of maintenance of marina-owned or customer’s vessels in the marina’s maintenance shop, must collect all used oil absorbent material, test for hazardous constituents and transport either as hazardous waste or used oil, depending on the test results. However, if the absorbents do not have free-draining oil and are not going to be burned for energy recovery, they are no longer subject to regulation as used oil. In this case, these soaked absorbents must have a hazardous waste determination and be disposed of as hazardous or [CT-Regulated waste](#). See [Appendix B](#) for more information.

Are There Any Other Requirements?

On-board air conditioning systems may also generate used oils which are contaminated with refrigerants (such as freon). This type of used oil must be recycled for its freon content. See fact sheet on “[Refrigerants](#)” for more information.

Spills of used oil (or any other petroleum liquids, chemicals, or hazardous waste) must immediately be reported via CT-DEP’s 24-hour spill reporting number: (860) 424-3338.

APPENDIX D: SOLID WASTE MANAGEMENT



Kim Czaplá

Chrisholm Marina, Chester

Solid Waste Management in Connecticut

Marina operators must make provisions for the proper disposal of solid waste on their site [33 USC 1905(a)(2)]. In addition, marina facilities are also required to make provisions for separating recyclables from other solid waste.

What Is Solid Waste?

Solid waste means unwanted or discarded solid, liquid, semisolid or contained gaseous material, including, but not limited to, demolition debris, material burned or otherwise processed at a resources recovery facility or incinerator, material processed at a recycling facility and sludges or other residue from a water pollution abatement facility, water supply treatment plant or air pollution control facility [CGS §22a-207(3)].

Municipal solid waste (MSW) means solid waste from residential, commercial and industrial sources, excluding solid waste consisting of significant quantities of hazardous waste, land-clearing debris, demolition debris, biomedical waste, sewage sludge and scrap metal [CGS §22a-207(23)]. The solid waste in your dumpster is considered MSW.

How Must a Marina Manage its Solid Waste and the Waste of Customers?

Under federal law, marinas are required to provide adequate collection for garbage from customers and transients [33 USC 1905(a)(2)]. For stormwater management purposes, the dumpster should be covered with intact drain plugs or be positioned in a roofed area which do not allow dumpster leakage to enter any stormwater drainage system.

Marinas must recycle certain wastes. State law requires that every resident living in a single or multifamily house or building, every business including non-profits, and all public and private agencies and institutions such as colleges, hospitals, local and state government agencies recycle [CGS §22a-241b(c)].

Items that must be recycled are:

- **Glass and Metal Food/Beverage Containers.** The small number of containers generated by the employees who work at your facility can be taken home for recycling, to a grocery store to reclaim the deposit or taken to your town's recycling drop-off center or transfer station. Remember that boaters tend to generate a lot of these recyclables.
- **Corrugated Cardboard** has three layers with a wavy layer between two flat paper layers. Keep the corrugated cardboard separate from your other waste. Remove any contaminants from corrugated boxes (e.g., plastic, foam, wood), open and flatten the boxes and place them in a dumpster or compactor used only for corrugated cardboard.
- **Office Paper and Newspaper.** The simplest way to recycle office paper is by taking it to your municipal recycling center/transfer station or by joining with other small businesses to develop a cooperative office paper collection program (some businesses share a dumpster and hauling

arrangements). Because most small businesses generate very few newspapers, one easy way to recycle them is to have employees take newspapers home for collection with their residential program.

- **Leaves and Grass Clippings.** Small businesses can rake leaves to a wooded area on their site, or compost leaves on site in a small contained pile (provide water and turn periodically to provide oxygen for the microorganisms). In some towns you may be able to place leaves at the curb for municipal collection or take them to a municipal leaf composting pile. It is recommended that grass clippings be left on the lawn areas since they act as a natural organic fertilizer.
- **Scrap Metal.** Items consisting predominantly of ferrous metals (steels), aluminum, brass, copper, lead, chromium, tin, nickel or alloys must be recycled. You can store metal separate from other waste or share storage containers with other small businesses in your area.
- **Used Oil.** See fact sheet on “[Used Oil](#)” for more information.
- **Lead Acid Batteries.** See fact sheet on “[Battery Replacement](#)” for more information.
- **Nickel-cadmium Batteries.** Call (800) 8BATTERY to find the nearest participating retail outlet that collects these batteries for recycling.

Specific questions about recycling options can be answered by your municipality, or call the CT-DEP’s Recycling Program at (860) 424-3365 for more information.

In addition to the items listed above, many municipalities have ordinances which require additional items to be recycled, such as plastic containers labeled with a Number 1 or Number 2, old magazines, drink boxes, and mini-juice cartons, and discarded mail. To find out about those additional items, contact your municipal recycling contact or refer to your local solid waste and recycling ordinance.

Bottles, cans and plastics can be collected together, but kept separate from paper and cardboard.

Management of hazardous waste is described in [Appendix B](#).

What Should and Should Not be Placed in a Dumpster?

Any waste that must be recycled (see above) or is a hazardous waste should not be placed in a dumpster. Wastes like used oil, antifreeze, liquid paints or varnishes, pesticides, or lead acid batteries should not be placed in a dumpster. Check with your solid waste hauler for more specific requirements.

What Are Some of the State Requirements for Solid Waste Haulers?

In Connecticut, solid waste haulers are required to:

- Provide a warning notice to customers suspected of violating separation requirements [CGS §22a-220c].
- Assist the municipality in identifying persons responsible for creating solid waste loads containing significant amounts of recyclables detected by the receiving resource recovery or solid waste facility [CGS §22a-220c].

Be advised that there are no facilities or municipal solid waste haulers permitted in Connecticut to “pick through” mixed MSW to retrieve designated recyclable materials.

What Are the Laws about Littering?

According to CGS §22a-250(a), no person shall throw, scatter, spill or place or cause to be blown, scattered, spilled, thrown or placed, or otherwise dispose of any litter up on any public property in the state or upon private property in the state not owned by him or in the waters of this state.

State statute defines “litter” as “any discarded, used or unconsumed substance or waste material, whether made of aluminum, glass, plastic, rubber, paper, or other natural or synthetic material or any combination thereof, including, but not limited to, any bottle, jar or can, or any top, cap or detachable tab of any bottle, jar or can, any unlighted cigarette, cigar match or any flaming or glowing material or any garbage, trash, refuse, debris, rubbish, grass clippings or other lawn or garden waste, newspaper, magazines, glass, metal, plastic or paper containers or other packaging or construction material which has not been deposited in a litter receptacle” [CGS §22a-248(4)].

What Are the Laws about Disposal of Solid Waste from Boats?

The Marine Plastic Pollution Research and Control Act of 1987 [33 USC 1901-1909, 33 CFR 151] (MPPRCA) implements the International Convention for the Prevention of Pollution of Ships (MARPOL). The MPPRCA makes it illegal for any vessel to dump plastic trash anywhere in the ocean or navigable waters of the state, and makes the following restrictions on disposal of non-plastic trash:

- Within U.S. lakes, rivers, bays, sounds and within 3 nautical miles from shore, it is illegal to dump plastic, paper, rags, glass, food, garbage, metal, crockery, or dunnage (lining and packing material that float).
- Between 3 and 12 nautical miles from shore, it is illegal to dump plastic and dunnage, paper, rags, glass, crockery, metal or food (unless ground to less than one inch in size).
- Between 12 and 25 nautical miles from shore, it is illegal to dump plastic and dunnage.
- Outside 25 nautical miles from shore, it is illegal to dump plastic.

NOTE: MPPRCA does not apply to fish waste [33 CFR 151.05].

APPENDIX E: SPILLS



Kim Czapl

Brewer Yacht Yard at Mystic

Spill, Prevention, Control, and Countermeasure Plans

The federal Clean Water Act requires facilities that store any kind of oil in certain volumes to prepare and implement Spill Prevention, Control and Countermeasure (SPCC) Plans to prevent the discharge of oil from a facility into navigable waters or adjoining shorelines. SPCC Plans require that your facility have adequate containment, such as berms and dikes around oil tanks to protect the soil and water in the event of a spill [40 CFR 112.1].

A SPCC Plan is a federal requirement, administered by the U.S. Environmental Protection Agency (EPA).

Does Your Marina Require a SPCC Plan?

Your facility needs to develop a SPCC plan if it does any of the following:

- Stores oil above ground in any size tank(s) with a total aggregate volume over 1,320 gallons (containers of less than 55 gallons and/or permanently closed storage tanks are exempt from the total); **or**
- Stores oil below ground in any size tank(s) with at total aggregate volume of 42,000 gallons (except for tanks that are compliant with the state requirement for USTs, [see page 51](#))

AND

- Could reasonably be expected to discharge oil to a “navigable water of the United States” or “adjoining shorelines” considering a possible worst-case scenario. (This criterion applies to just about every marina in the state, since a facility cannot take into consideration any man-made impediments to the flow of oil.)

NOTE: “Oil” is defined in Section 311(a)(1) of the Clean Water Act as “oil of any kind or in any form including, but not limited to, petroleum, fuel oil, sludge, oil refuse, and oil mixed with wastes other than dredged spoil.” EPA interprets this definition to include crude oil, petroleum and petroleum-refined products, as well as non-petroleum oils such as vegetable and animal oils.

NOTE: “Navigable waters” are broadly defined under the Clean Water Act and the Oil Pollution Act to include all waters that are used in interstate or foreign commerce, all interstate waters including wetlands, and all intrastate waters including wetlands, sloughs, prairie potholes, wet meadows, playa lakes, or natural ponds. Essentially, the term navigable waters refers to any natural surface water in the United States.

- A determination that an SPCC Plan is not necessary for a facility must be made by a registered Professional Engineer, not facility management.

What is an SPCC Plan?

An SPCC Plan outlines a facility's oil containment systems and procedures to prevent an oil spill. It also outlines oil spill response and clean up protocols. Each SPCC Plan is site specific, but must address the following:

- Operating procedures that prevent oil spills;
- Control measures installed to prevent a spill from reaching the environment; and
- Countermeasures to contain, clean up, and mitigate the effects of an oil spill that reaches the environment.

Who Writes an SPCC Plan?

The facility can prepare the plan, but the plan must be certified by a Registered Professional Engineer.

Is There a Particular Form or Format for the SPCC Plan?

EPA does not expect any two plans to look alike. However, at a minimum, all plans must include:

- Facility layout and drainage patterns
- List of all oil storage tanks and areas
- Quantities of oil that could be released, with predicted path of flow and flow rate
- Procedures for receiving oil from supplier, transfer of oil within the facility, end point uses of the oil, waste oil disposal
- Effects of a spill at the facility, fire hazards, employee evacuation, customer/neighbor considerations, press relations
- Capacity of required secondary containment devices. If it is not practicable to install secondary containment (i.e., a fuel dock), the owner/operator must explain why and provide a strong spill contingency plan, describing commitment to manpower, equipment, and materials to control and remove any harmful quantity of oil discharged.
- Clean-up procedures, use of in-house staff versus contractors
- Notification list. Name(s) and phone numbers of in-house management, remote management, fire and police, municipal, state and federal agencies requiring notification
- Facility security for prevention of internal sabotage, external vandalism
- Employee training for spill prevention, oil handling, and spill clean-up. Only oil handling personnel must be trained in operation and maintenance of equipment to prevent oil discharge. Discharge prevention briefings for oil handling personnel must occur at least once a year.
- OSHA considerations

Where Should the SPCC Plan be Located?

REQUIRED: A copy of the SPCC plan must be maintained at any facility manned at least 4 hours per day. For remote locations, the SPCC plan should be filed at the nearest field office. A copy does not have to be filed with EPA or any other agency, unless it is a condition of a permit or license held by the facility. However, the SPCC plan must be available during normal business hours for review by an EPA inspector. EPA requires that facilities submit a copy of the SPCC

plan to EPA Region 1 if a single spill of greater than 1,000 gallons occurs, **or** if two discharges of 42 gallons or more occurs within one year.

All employees must be made aware of the SPCC plan

HIGHLY RECOMMENDED: Copies should be made for posting in plain view at oil storage locations.

Does an SPCC Plan Need to be Reviewed and/or Updated?

- The plan has to be reviewed at least once every five years. You must keep records of these reviews. An example of such documentation is “I have completed review and evaluation of the SPCC plan for (name of facility) on (date), and will/will not amend the plan as a result (signature).”
- The plan must be amended when there are changes in facility design, construction, operation or maintenance which materially affect the facility’s potential for the discharge of oil; or there are two or more spills in 12 months, or one spill of 1,000 gallons.
- Only technical changes to the SPCC plan must be certified by a Registered Professional Engineer. Non-technical amendments include personnel or contact information changes.

Who Cares if My Facility Does Not Have a Plan?

- Company management. Having measures in place to prevent spills is cost effective, since spill cleanup can be costly. However, when a plan is in place, spill cleanup can be more efficient, more effective and less costly than if there is no course of action.
- The U.S. EPA. The penalty of failure to have a SPCC Plan can be up to \$27,500 per day of violation, up to a maximum of \$137,500, if an administrative action is filed. The EPA performs random, unannounced inspections of facilities suspected of needing a SPCC Plan.

If There Is a Spill, What Could You be Held Responsible for?

- Removing the material from public property. Cleaning of highways, waterways, storm drains, bridge abutments, etc.
- Removing the material from private property, such as boat hulls and parking lots.
- Paying for natural resources damages (lost parking receipts at public beaches; lost revenues from fishing licenses; replacing killed fish, shellfish and waterfowl).
- Paying for lost livelihood wages of fisherman and shell fisherman, devaluation of property for sale. Private suits.
- Civil penalty for spilling into a water of the U.S.
- Criminal penalty if you fail to notify the federal authorities. State agencies and contractors have no responsibility to notify for you.

For questions about the federal SPCC program, call Donald Grant, Oil Spill-SPCC Enforcement Coordinator for EPA-Region One at (617) 918-1768.

State and Federal Reporting Requirements: Oil, Gas and Chemical Spills

What Constitutes a Spill?

In Connecticut, any oil or petroleum product, chemical or waste that is released in any manner constitutes a spill [CGS §22a-452c]. Spills also include leaks from underground and above ground tanks. Any size spill must be reported to the CT-DEP's Oil and Chemical Spill Response Division

What Immediate Actions Should be Taken?

In case of a spill, stop the flow, contain the spill, call 911 or the local emergency response, report the spill to CT-DEP (see below), then report to the National Response Center if necessary (see below).

When Should a Spill be Reported to the Connecticut Department Of Environmental Protection?

In Connecticut, any size spill of oil or petroleum product, any chemical, or waste, must be reported to the CT-DEP. The party causing the spill or pollution and the property owner are responsible for:

- Immediately reporting the spill to the CT-DEP's Oil and Chemical Spill Response Division at (860) 424-3338, and beginning the appropriate containment and cleanup efforts, which must be performed by a licensed contractor [CGS §22a-454]. The telephone number is staffed 24-hours/seven days a week.
- Complete a written "Report of Petroleum or Chemical Product Discharge, Spillage, Seepage, Filtration" and mailing it to CT-DEP within 24 hours. Contact the CT-DEP at (860) 424-3377 for the forms.

Connecticut law establishes what is called "strict liability" for spills of most pollutants into the environment. This means that the person or business causing the spill and the owner of the property where the pollution occurred are financially responsible for clean up, regardless of fault. All spills must be reported and dealt with quickly.

When Should an Oil Spill be Reported to the Federal Government?

Section 311 of the Clean Water Act disallows the discharge of oil into or upon the navigable waters of the United States, their adjoining shorelines, or where natural resources may be affected [33 USC 1321, 40 CFR 110].

You must report an *oil spill* to the National Response Center at (800) 424-8802 if:

- the spill is to navigable waters or the adjoining shoreline, or
- water quality standards could be violated, or
- the spill causes a sheen or discoloration, or
- the spill causes a sludge or emulsion.



Note that if you do not have a CT-DEP approved spill contractor on retainer, the CT-DEP will assess a surcharge and hire one for you in the event of a spill. See the “Emergency Planning” fact sheet for more information.

When you call the National Response Center to report an oil spill or release, the staff person will ask you the following questions:

- Name, location and telephone number
- Name and address of the party responsible for the incident
- Date and time of the incident
- Location of the incident
- Source and cause of the release or spill
- Types of materials released or spilled
- Quantity of material released or spilled
- Danger or threat posed by the release or spill
- Number and type of injuries (if any)
- Weather conditions at the incident location
- Any other information that may help emergency personnel respond to the incident.

When Should a Hazardous Chemical Spill be Reported to the Federal Government?

You must report a *hazardous chemical spill* to the National Response Center at (800) 424-8802 if:

- the release could threaten human health off the property.

When you call the National Response Center to report a hazardous chemical spill, the staff person will ask you the following questions:

- The chemical name
- An indication of whether the substance is extremely hazardous
- An estimate of the quantity released into the environment
- The time and duration of the release
- Whether the release occurred into air, water, and/or land
- Any known or anticipated acute or chronic health risks associated with the emergency, and where necessary, advice regarding medical attention for exposed individuals
- Proper precautions, such as evacuation or sheltering in place
- Name and telephone number of contact person

The facility owner or operator is also required to provide a written follow-up emergency notice as soon as practicable after the release. The follow-up notice or notices must:

- update information include in the initial notice, and
- provide information on actual response actions taken and advice regarding medical attention necessary for exposed individuals.

APPENDIX F: STORMWATER GENERAL PERMIT



Chris Stone

Port Niantic Marina, Niantic

Stormwater General Permit

Why Permit Stormwater Runoff?

Pollutants carried in storm drainage systems now make up between 50% and 90% of all pollutants reaching Connecticut's surface waters. Some examples of potential sources of stormwater runoff pollution from industrial and commercial activities include:

- Outdoor boat maintenance;
- Dumpster leakage;
- Open topped dumpsters;
- Dumping of materials into storm drains;
- Internal floor drains or trenches connected to storm drains; and
- Outdoor storage including drums or other containers.

The 1987 amendments to the Federal Water Pollution Control Act, commonly known as the Clean Water Act, provide the authority for the National Pollutant Discharge Elimination System (NPDES) permit program to control pollutant discharges to the nation's waters, including those from stormwater runoff. The 1987 amendments to the Clean Water Act mandated EPA to develop a tiered implementation strategy for the NPDES Storm Water Program. In response to the 1987 Amendments, EPA developed Phase I of the NPDES Storm Water Program in 1990. Phase I requires NPDES permits for storm water discharges from eleven categories of industrial activity, which are defined in 40 CFR 122.26(b)(14). A permit is required for Standard Industrial Classification (SIC) codes 4493 (marinas) and 3732 (boatyards and boat builders that repair, clean, and/or fuel boats). Note that the North American Industry Classification System (NAICS) is replacing the U.S. SIC system and is scheduled to be completed by 2002. NAICS was developed jointly by the United States, Canada, and Mexico to provide new comparability in statistics about business activity across North America.

Section 22a-430 of the Connecticut General Statutes (CGS) requires that *all* discharges, including stormwater runoff discharges, to surface waters in the state have permits for discharge.

To make this requirement easier and less expensive for facilities, the CT-DEP developed the General Permit for the Discharge of Stormwater Associated with Industrial Activity.

Who Must Register for a General Permit for the Discharge of Stormwater Associated with Industrial Activity ("Stormwater General Permit")?

- Facilities classified under Standard Industrial Code (SIC) 4493 (Marinas) and SIC 373 (Ship and Boat Building and Repairing) where portions of the facility are involved in boat, vehicle or equipment maintenance, fueling and/or vehicle or equipment cleaning operations, and

- There is a stormwater discharge associated with the industrial activity.

What Is a Stormwater Discharge Associated with Industrial Activity?

- The discharge from any conveyance, such as a pipe, ditch, channel, swale, or other discrete discharge (including boat launch ramps and marine railways) which is used for collecting and conveying stormwater that comes from areas related to manufacturing, processing, maintenance, waste disposal, or material and boat storage areas at your site. Typical marina activities considered “industrial activities” include boat maintenance (particularly bottom pressure washing and sanding), painting, engine maintenance and disposal of paints, solvents, engine fluids and other waste materials.

What is Required for Industrial Sites?

1. Registration of the facility: a fully completed four-page form, a \$250 processing fee (no annual fees/5year permit life) and a USGS quad map.
2. Development of and compliance with a Stormwater Pollution Prevention Plan (SWPPP) (see below)
3. Annual Stormwater Sample. Sampling may be waived after two years of good results, or one year of good results for small businesses (less than 25 employees).

What is a SWPPP?

A SWPPP is a document outlining the facility’s potential pollutant sources, training, good housekeeping and other best management practices to prevent pollutants from getting into stormwater runoff.

A SWPPP must:

- be prepared at least 30 days before the start of activity
- identify individuals or a group of people who are the Stormwater Pollution Prevention Team to develop and implement the plan
- describe all potential sources of pollution which may reasonably be expected to affect stormwater quality at the site or which may result in the discharge of pollutants to surface waters or a storm drain.
- be certified by a licensed professional engineer.
- include a discussion of the need for stormwater management or treatment practices, and provide consideration of a variety of measures to minimize pollution.
- provide that qualified personnel shall conduct site compliance evaluations twice a year.
- include the following:
 1. A site map outlining the drainage area; and
 2. An inventory of exposed materials and summary of potential pollutant sources; and
 3. A list of spills and leaks of 5 gallons or more of toxic or hazardous substances which could affect stormwater; and
 4. A description of the monitoring program and sampling data for stormwater discharges at the site; and

- describe the stormwater measures and controls appropriate for the facility with a schedule to implement the controls, including provisions which allow for:
 1. the maintenance of a clean, orderly facility; and
 2. prohibition of washing of equipment or vehicles that allows wash water to enter storm drainage system or receiving water, and that all floor drains connecting to storm sewers have been sealed; and
 3. identification of roof area which may be subject to drippage from exhausts or vents or other sources of pollution, including an inspection program and identification of steps to eliminate the sources; and
 4. identification of areas with potential for soil erosion, and measures to eliminate that potential; and
 5. a preventive maintenance program; and
 6. spill prevention and response procedures; and
 7. oil and chemical storage above ground on impermeable containment which will hold at least the volume of the largest chemical container or 10% of the total volume of all containers in the areas, whatever is larger, without overflow from the containment area. For activities initiated after October 1, 1992, all chemicals and their containers shall be stored under a roof, except for those chemicals stored in containers of 100 gallon capacity or more, in which case a roof is not required; and
 8. covered dumpsters with intact drain plugs or roofed areas for dumpsters; and
 9. employee training on the contents and procedures in the SWPPP.

What are the Stormwater Monitoring Requirements?

- Facilities must conduct annual stormwater monitoring each year by October 1 for a specified list of parameters and keep records of the results, as described in the Stormwater General Permit.

Other Considerations:

- If the discharge of stormwater is located less than 500 feet from a tidal wetland, the upland stormwater system must be designed to retain the volume of stormwater runoff generated by one inch of rainfall on the site.
- If the discharge point is located waterward of the high tide line in tidal, coastal or navigable waters, a permit is required under the Structures, Dredging and Fill Act in accordance with CGS Section 22a-361(a).
- If the stormwater discharges into tidal wetlands, a permit is required under the Tidal Wetlands Act in accordance with CGS Section 22a-32.

For more information:

For a copy of the *General Permit for the Discharge of Stormwater Association with Industrial Activity*, a guidance document for preparing a SWPPP, or for more information on about the requirements, call the CT-DEP's Bureau of Water Management at (860) 424-3018.

Select References

Amaral, Mark and Virginia Lee. 1994. *Environmental Guide for Marinas: Controlling Nonpoint Source and Storm Water in Rhode Island*.

Narragansett, RI: Rhode Island Sea Grant, University of Rhode Island Coastal Resources Center.

Buller, Pat. 1995. *Clean Marina + Clean Boating + Clean Water Partnership*. Seattle, WA: Puget Soundkeeper Alliance.

Commonwealth of Virginia. 2001. *The Virginia Clean Marina Guidebook*. Richmond, VA: Virginia Sea Grant and Virginia Department of Conservation and Recreation. VSG-01-03.

Epsilon Associates, Inc. 2001. *Massachusetts Clean Marina Guide: Strategies to Reduce Environmental Impacts*. Boston, MA: Massachusetts Office of Coastal Zone Management.

Florida Department of Environmental Protection. 1999. *Florida Clean Marina Program: Marina Environmental Measures*. Tallahassee, FL: Florida Department of Environmental Protection.

Fugro and McClelland. 1992. *Best Management Practices for Coastal Marinas: Final Report*. Hartford, CT: Connecticut Department of Environmental Protection.

Gordon, Miriam, F. California Coastal Commission. *Oil Pollution Solutions for Boaters: Designing and Implementing Programs to Reduce Hydrocarbon Discharges*. Joaquin County, CA: Joaquin County Department of Public Works.

Logan, Karen. 1997. *Clean House, Clean Planet: Clean Your House for Pennies a Day, the Safe, Nontoxic Way*. New York, NY: Pocket Books.

Maine Department of Environmental Protection. 1999. *Best Management Practices for Marinas and Boatyards: An Environmental Guide to Controlling Nonpoint Pollution in Maine*. Augusta, ME: Maine Department of Environmental Protection.

Maryland Department of Natural Resources. 1998. *Maryland Clean Marina Guidebook*. Annapolis, MD: Maryland Department of Natural Resources.

Smith, Neil and Phil Troy. 1997. *Shopping for Safer Boat Care: 97 Health and Environmental Ratings*. Camden, ME: International Marine/Ragged Mountain Press.

United States Environmental Protection Agency. 1996. *Clean Marinas—Clear Value: Environmental and Business Success Stories*. Washington, DC: EPA-841-R-96-003.

United States Environmental Protection Agency. 2001. *National Management Measures Guidance to Control Nonpoint Source Pollution from Marinas and Recreational Boating*. Washington, DC: EPA-841-B-01-005.





Contact Information

Connecticut Department of Environmental Protection

| | |
|---|----------------|
| 24-hour Emergency Spill Reporting | (860) 424-3338 |
| General Number | (860) 424-3000 |
| Boating Division (Clean Boater Program) | (860) 434-8638 |
| Clean Marina Program | (860) 424-3034 |
| Department of Air Management, Planning & Standards | (860) 424-3027 |
| Department of Waste Management, Engineering and Enforcement Division | (860) 424-3023 |
| Inland Fisheries | (860) 424-3474 |
| Hazardous Waste Compliance Assistance | (888) 424-4193 |
| Long Island Sound and Nonpoint Source Program | (860) 424-3020 |
| Marine Fisheries | (860) 434-6043 |
| Office of Long Island Sound Programs | (860) 424-3034 |
| Office of Pollution Prevention | (860) 424-3297 |
| State Emergency Response Commission | (860) 424-3373 |
| Stormwater Permitting | (860) 424-3018 |
| Source Reduction and Recycling | (860) 424-3365 |
| Underground Storage Tank Enforcement Program | (860) 424-3374 |

Other Numbers

| | |
|---|--|
| Connecticut Marine Trades Association | (860) 767-2645 |
| National Response Center | (800) 424-8802 |
| RCRA, Superfund & EPCRA Call Center | (800) 424-9346, or TDD (800) 535-7672 |
| State Fire Marshall's Office | (860) 685-8350 |
| US Army Corps of Engineers Regulatory Branch | (800) 343-4789 |
| US Environmental Protection Agency, New England Region | (617) 565-3420 |

